Instructions IN CLINICAL MEDICINE,

Given at the London Hospital

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(*Reported for* THE LANCET *and revised by the Author.*)
[WITH COLOURED PLATE.]

III.[1]

DEMONSTRATION OF CASES OF FIBROID LUNG DISEASE, WITH REMARKS.

FORMS OF FIBROID DISEASE.

GENTLEMEN,—By the kindness of Drs. Hadley and Chaplin you have had the opportunity of seeing several cases of fibroid disease of the lung; and here to-day we are going to assemble a number of other cases that you may learn the different forms which these fibroid affections of the lung assume. Now there are three different degrees of fibroid disease which it is worth your while to remember. First, there is the simple fibroid lung; secondly, there is the fibroid lung with dilatations; and thirdly, the fibroid lung, with or without dilatations, but with cavities. To the first we give the name of fibroid lung; to the second the name of bronchiectasis (but I shall consider that with you on another occasion); and to the last the term "fibroid phthisis" has been applied.

FIBROID PHTHISIS.

In reference to fibroid phthisis it is very important to remember the definition we have given of pulmonary phthisis—that is to say, it is "that assemblage and progression of symptoms associated with and dependent upon the ulcerative or suppurative destruction of more or less circumscribed non-malignant deposits in the lung." This is our generic phthisis: varieties are indicated by the prefix of adjectives indicating the physical nature of the consolidation; and hence it is that any fibroid induration of the lung with cavities therein has been called fibroid phthisis. The next point, and it is only the salient points that I wish to reproduce before you to-day, is the essential characteristics of this fibroid disease of the lung. The first is that it is as a rule non-febrile except on occasions when intercurrent disease arises; the second is that it is chronic; the third is that it is compatible with prolonged average good health; and the last that I think worth while to mention to you upon this occasion is the fact that it is not incompatible with the longest duration of human life. A few years ago some of you remember—Dr. Hadley remembers—there was a patient in the female ward seventy-six years of age with fibroid phthisis of the left lung.

COMPLICATIONS IN FIBROID AFFECTIONS OF THE LUNG.

The next point of importance is the question of the complications to which this fibroid affection of the lung is subject. There is first of all gastro-hepatic catarrh; secondly, albuminuria; thirdly, attacks of diarrhœa; fourthly, hæmoptysis; fifthly, dropsy; and lastly, nephritis. Now I here interpolate an important observation; it is, that I have never yet seen a case of this affection of ten years' standing without albuminuria, and that albumen frequently appears in the urine even before the second year of the disease. The last point to which I shall now advert in relation to this subject is the nosological position of fibroid disease. With respect to the first stage of it, mere fibroid consolidation or induration, there is no conflict of opinion. Concerning the second stage, that is with fibroid induration and dilatation, more or less, of the bronchial tubes, there is considerable discussion. A tendency has shown itself among certain observers to call this form bronchiectasis; but to call it by this term is merely to take note of one of the leading pathological factors of fibroid disease and to make it the distinguishing characteristic. I do not think there is anything intrinsically wrong in this, but it diverts the mind from the real cause of the bronchial dilatation, which is the fibroid affection of the lung, and this affection is either primary or secondary; rarely primary, but usually secondary to a dry pleurisy, to prolonged bronchitis, and to unreduced pneumonic deposits. The third term, "fibroid phthisis," is maintained on account of the definition which was given to you at the beginning of this instruction. But there are two nosological aspects of it; and here again there is the greatest conflict of opinion.

TUBERCULO-FIBROID PHTHISIS.

I wish to explain that in all these cases which you have seen of this disease, and they have been many, no tubercular bacilli have been found; and hence, in no sense of the word, according to the present state of pathological knowledge, can these be called cases of true tubercular disease, because, as you know, at present the criterion of a tubercular affection is the presence of the tubercular bacilli in the affected part. Now in this fibroid induration one of the most interesting points is that in the greatest number of cases no tubercular bacilli make their appearance at any time. But in a certain small proportion of cases, when the lung has been attacked by colds or pleurisies or pneumonia, tubercular bacilli make their appearance, cavities form, and then, in harmony with prevailing doctrines, the term tuberculo-fibroid phthisis may be justly employed. And of course, if a case came before us here of fibroid disease of the lung, with or without dilated bronchi, with cavities and with bacilli in the expectoration, we should be bound, in just loyalty to the present state of our knowledge, to call that case tubercular phthisis. But we are bound also to recognise the fact of the presence of the fibroid material which makes all the difference between what one may call ordinary tubercular phthisis where there is no such large amount of fibroid disease and that kind of tubercular phthisis where there is. The difference appears in this way: that whenever in a case of tubercular phthisis the lung is riddled with small cavities and studded with tubercles surrounded by pneumonic exudations the progress of that disease is as a rule febrile and comparatively rapid; but, on the other hand, mark this, that whether bacilli be present or not the course of that case of tubercular phthisis in which the fibroid element dominates the rest of the pathological changes will be very slow, it will be unattended with fever, and it may last for many years.

ACCOMPANIMENTS OF TUBERCLE.

I wish here to emphasise the fact that two marked secondary structural affections either accompany or follow the deposit of tubercle in the lung. One of these is the occurrence of a pneumonic exudation around the tubercles and the other is the appearance of a zone of fibroid tissue, and you can with perfect confidence foretell the general course of tubercular phthisis by the dominance of one or other of these secondary affections. If fibroid tissue for the main part surrounds the tubercles the progress of the case will be slow and fever will not be prominent; but if, on the other hand, pneumonic changes dominate the progress of the case will be rapid and fever will prevail.

RÉSUMÉ.

That is all I have to say just now, but I will bring in the cases and I will put them before you, and I hope that what you will see to-day will satisfy you that this fibroid disease of the lung is not very rare; and that it is very important for the safety of the patient and your own credit that you should know the causal history of it—namely, its slowness, its freedom from fever and the duration of time over which it may extend.

GENERAL HISTORY OF THE CASE.

I purpose now considering with you the case of a little girl provided for our instruction by Drs. Hadley and Chaplin. You see she is undergrown and somewhat ill developed, but she is well nourished and there is no history of loss of flesh. She has a large head; the features are swollen, the eyelids are baggy, the face is purplish, she is round-shouldered and has clubbed finger ends. Menstruation has not yet appeared. There is no family history of phthisis, of alcoholism or of syphilis. The patient has been ill since she was two years and a half old, and the illness began with a severe whooping-cough, followed a few months afterwards by measles. Since then she has never been free from chest trouble, becoming worse in winter and better in summer. At present she suffers from cough, from rather profuse expectoration and from shortness of breath. But for these

[1] For the first of these Clinical Instructions see THE LANCET, of Jan. 2nd, and for the second, THE LANCET of July 2nd, 1892.

symptoms and her undue liability to feverish colds, the patient declares that she would be quite well. The cough is paroxysmal and often ends in retching or vomiting. The expectoration is muco-purulent, abundant, and often discharged in mouthfuls at the close of a paroxysm of coughing. It is not fetid; and, although many times microscopically examined by various persons, no tubercular bacilli have been found in it.

EXAMINATION OF THE CHEST.

On examining the chest we find that the thorax is barrel-shaped; that its movements are unequal; and that it rises rather than expands on inspiration. The right side is much smaller than the left; it is flattened and retracted; it moves very little during respiration and the intercostal spaces are almost effaced; the veins of the neck are distended and are not emptied on inspiration. Portions of the upper and lower divisions of this side are drawn inwards during the inspiratory movements; the cervical and upper brachial regions are a little swollen; and the respiratory movements, which are laboured, are about 25 in the minute. On more narrowly examining this right side you can see the impulse of the heart immediately in front of the right nipple, whereas no cardiac impulse can be seen or felt in its usual position.

THE POSITION OF THE HEART.

Let me here arrest your attention for a moment to consider this instructive sign of disease which I have just mentioned to you. It is of the first importance to determine early in the examination of a chest the place where the heart is beating. This determination will preserve you from many mistakes; and sometimes it will throw a great light on the nature of the disease which you are investigating. When you find the heart beating in the right side of the thorax the displacement is due to an error of development; to air or to fluid in the left pleura which has pushed the heart aside; or to a contraction of the right lung which has pulled it over to fill the space created by the contracted organ. In the case before us we shall soon see that as there is no error of development and no air or fluid in the left pleura the displacement of the heart which exists must be due to a contracted lung.

UNUSUAL ACTION OF THE HEART.

As I have spoken of displacement of the heart let me add a word or two about its action. The heart, which is somewhat enlarged, acts in a very notable way. Its action is clear, strong, deliberate; the first and second sounds are loud and sharply defined, and the second sound follows the first at a considerably longer interval of time than occurs in the normal condition. These characteristics of the heart's action in this case are very different from the characteristics of the heart's action in ordinary tubercular phthisis, and so common are they in cases of fibroid lung that I have been able, many times, to discover the state of the lung merely from the mode of action of the heart. I shall probably have to recur to this subject on another occasion.

THE CONDITION OF THE RIGHT LUNG.

Let us now return to the condition of the right lung. I have already pointed out to you that the right side of the thorax is retracted and moves imperfectly in the upper third, except over the divisions of the larger bronchi. Tactile vocal fremitus is diminished and in the lower two-thirds it is almost annulled. There is dulness to percussion over the whole of the right side posteriorly; moderate above and complete from about the middle to the base of the lung. In front the dulness has a tubular character somewhat resembling the note elicited on percussing the summit of a child's lung the lower part of which is surrounded and compressed by fluid.

AUSCULTATION.

Over the summit of the lung one hears bronchial breathing, coarse, moist, subcrepitant râles and pleural creaking. The vocal resonance is bronchophonic. From the clavicle to the nipple you can hear coarse moist crepitations and creaking. From the nipple downwards scarcely any sounds are heard, and vocal resonance is almost inaudible. Below the spine of the scapula and towards its inner side the tactile vocal fremitus is much increased and there is bronchial breathing. The vesicular murmur is replaced by loud subcrepitant râles; the vocal resonance is bronchophonic and almost pectoriloquous; and pleural creakings are heard throughout both respiratory movements. Immediately below this only faint moist crepitations are heard with diminished vocal resonance. Throughout the base the respiratory sounds and resonances are inaudible.

CONCURRENT PHYSICAL SIGNS AND THEIR INTERPRETATION.

Let us here pause for a moment to consider this concurrence of physical signs present in the base of the lung: partial effacement of the intercostal spaces, an almost even surface, diminished movement, abolition of tactile vocal fremitus, inaudible breath sounds and suppressed vocal resonance. What interpretation would ordinarily be placed upon this assemblage of physical signs? Without the closest critical examination what interpretation is indeed often put upon them? Often such a concurrence of physical signs is held to be conclusive as to the presence of fluid in the pleural cavity; and often operations, not always without peril, are peformed for its withdrawal. Doubtless exploratory operations are in some circumstances unavoidable, and usually they are harmless; but, on the other hand, it is desirable to avoid the performance of an operation which is unnecessary and may be injurious. A careful study of the physical signs will generally prevent you from forming an erroneous judgment. If there are diminished movement and contraction of the affected part, if such dulness as may be present is not influenced by the position of the patient, if the outlines of the dulness are the same in all postures, if any displacement of organs exists, if the displacement is towards the dulness and not from it, if pleural creaking is heard in the dull region and if the results of percussion and of auscultation vary somewhat at different points, you may be almost certain without further knowledge of the case that you are dealing with a consolidated lung. But you cannot be quite certain; for on rare occasions small empyemata or locular pleuritic effusions exist, and no refinements of physical exploration and no degree of skill in their use will enable you conclusively to distinguish between them. You must explore, and in exploring you must remember that in a few cases death has resulted from this simple operation.

GENERAL CONDITION OF THE PATIENT.—DIAGNOSIS.

Resuming our examination of the patient we find that there is no conclusive evidence of the existence of disease in the left lung. As I have already stated the cough is paroxysmal, and in the morning it sometimes brings about retching with the discharge of muco-purulent sputa devoid of fetor. In the sputa no tubercular bacilli have been found and no connected areolæ of elastic tissue; on the other hand, every specimen examined has been found swarming with micro-organisms of various kinds. Now, let us turn to the general condition of the patient in order to determine if it has been in any way affected by the presence and persistence of the disease of the right lung. The tongue is large, white, watery, indented; it is a catarrhal tongue. The appetite is good, there is no indigestion, the bowels are regular, the urine is abundant and doubtfully albuminous. There is no evidence of disease or of material disorder of the nervous system. To repeat what I said of the patient at the beginning, she feels quite well except for the discomforts caused by the varying conditions of her affected lung, and those discomforts, as you have seen, are neither constant nor serious. What is the nature of the patient's malady? The reply will vary according to the school of thought from which the reply may emanate. For example, in one case the malady will be called "contractile phthisis," in a second it will be called "tuberculosis with contraction" and in a third it will be called "bronchiectasis." For my own part, in obedience to what I believe to be a simpler and more scientic terminology, I diagnose the disease as a fibroid lung with dilatation of bronchial tubes and perhaps a small cavity. It should be, I think, a cardinal principle in naming that the name applied should involve no hypothesis which, although accepted to-day may be rejected to-morrow, and that if possible the designation of any given disease should be founded on some physical and abiding quality of its nature. It is mainly to improper naming that we owe the confusion of ideas which at this time invest and enter into all our discussions concerning tuberculosis and pulmonary phthisis.

THE PROGNOSIS.

What now is to be said of the future of this case? Liable to many complications which may imperil and terminate life—to bronchitis, pneumonia, pleurisy, hæmoptysis, to nephritis and to general dropsy—the patient may nevertheless, with judicious care in the management of her daily health, achieve the longest duration of human life. What is the treatment to be pursued in this case? By what system of management, by what administration of drugs, are we most

likely to avert complications or conduct them, if they arise, to a successful issue and to prolong life? I do not intend to discuss to-day the treatment of this patient; but some days hence, when I have examined with you a few more cases of fibroid disease of the lung and have made you familiar with their different aspects, I shall discuss the question of treatment on such broad lines as will convey to your minds those general principles of management which my experience has taught me to adopt and employ.

[The coloured plate presented with this lecture represents a section of lung with diffuse fibroid change, accompanied by thickened and dilated bronchi. The whole lung is much contracted and all but the very base is involved in the change, which is especially marked in the inter-lobular septa and around the vessels and bronchi, the spongy texture being in great measure replaced by fibrous tissue. Some enlarged, indurated and pigmented glands are to be seen at the root of the lung.—ED. L.]

THE CORRELATION OF STRUCTURE, ACTION AND THOUGHT.

INAUGURAL ADDRESS,

Delivered at the Royal Medical Society of Edinburgh on October 21st, 1892,

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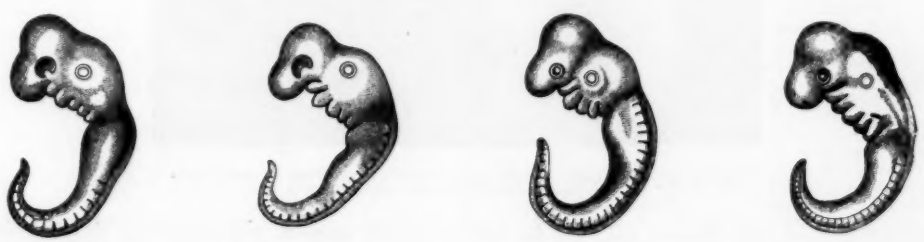
[WITH COLOURED PLATE.]

MR. PRESIDENT AND GENTLEMEN,—Allow me to return you my most grateful thanks for the honour which you have done me in asking me to address you to-night. I believe that there are none here excepting myself who can understand how grateful I feel, because no one else can know how much I owe to this Society. I have been compelled during my life to do a good deal of speaking and of writing and yet these are the two things which above all others I dislike and for which I am naturally entirely unfit. Had it not been for the training which I received in this Society I do not think that I should ever have been able to speak in public at all. In relation to speaking and writing, I often recall an anecdote told me by my poor friend the late Dr. Milner Fothergill regarding a beaver which an American said he had chased so hard that it had been forced to climb up a tree to escape him. "But," said his hearer, "beavers cannot climb trees." "Well," replied the American, "I guess this one had *just got to*." Now this Society played to me the part that the American did to the beaver and forced me both to speak and write, and I am therefore very grateful to it. My first attempt at writing was the dissertation which the rules of the Society demanded and my first attempt at speaking was made in this room when I stammered out half a dozen words, each one broken into bits by the palpitations of my heart, and then thankfully sat down.

But it is not only in speaking and writing that I owe my training to the Royal Medical Society of Edinburgh, I owe to it also my first initiation into scientific methods—my first instruction in scientific scepticism. I well remember that on one occasion a member made a certain statement; he had no sooner sat down than he was challenged by my friend, Dr. John Wyllie. The first member again rose to his feet and maintained that his statement was true, and that his facts were correct because Professor So-and-so had said so. Again Dr. Wyllie rose, and with the simple question, "But is Professor So-and-so right?" swept away the ground from under his opponent's feet and gave me a new insight into scientific evidence. Previously I had been inclined to accept all the dicta of the professors as Gospel truth, but from that time onwards I accepted them only with the proviso that Professor So-and-so might possibly be wrong. Training like this, gained by a student in the discussions at the meetings here, is of the utmost possible importance as supplying a valuable part of medical education and complementing the instruction which he gains in the lecture rooms; it enables him to sift the statements which he there hears and to assimilate them in his own mind, so that they become as it were part of himself, and afford him a basis of knowledge upon which he not only can act in daily life, but from which he may advance onwards and benefit both his profession and the world at large by new discoveries. This training is so invaluable that I should look upon anything which would interfere with it as detrimental to the student; for a little knowledge, like a little food, if well assimilated, is more useful than an undigested mass, which may be not only useless but positively injurious.

The numerous discoveries which have been made during the twenty-nine years which have elapsed since I first took my seat in this hall as a member of the Society have tended to increase the mass of facts which the student has to learn; and the numerous examinations have tended to foster a system of cramming which is totally distinct from that of true education. For the purpose of examination the student is tempted to load his memory with many details and to learn by heart statements which may or may not be true, simply for the purpose of committing them to paper and thus gaining good marks in competitive examinations without considering in the least whether these statements are true, or whether the facts, so called, are likely to help him at all in his future life. The period during which I regularly attended the meetings of this Society was a transitional one, because the number of examinations, competitive and professional, was then beginning to increase. I trust it is not true, but I have heard that since my time the examination incubus has been weighing even more heavily upon men than it did then, and has been interfering to some extent with the activity of the discussions in this society. Yet even if it were true it can hardly be wondered at, for it seems to me that we are living at a period which is not only one of the utmost activity, one of the most startling progress, and one of the keenest excitement for all engaged in research, but at the same time it is one of the utmost difficulty for all those who are engaged in the study of medicine, surgery and the allied sciences. For the number of facts is not only enormously great, but is daily increasing at a rate which threatens to make it almost impossible for any ordinary memory to retain them all. Yet the darkest hour is that before the dawn, and I believe that shortly medical study will become very much easier. The great difficulty that the student has in remembering facts is that

FIG. 1. FIG. 2. FIG. 3. FIG. 4.



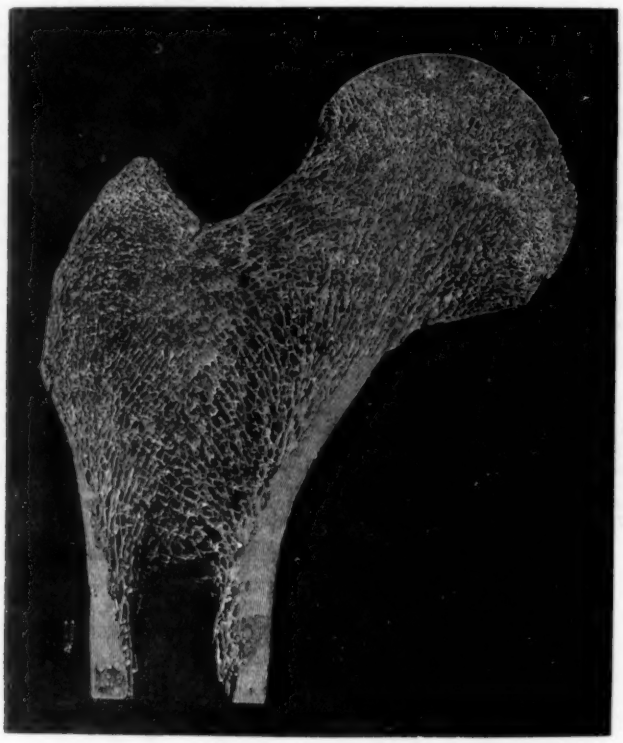
Chick. Tortoise. Hog. Man.

(After Haeckel.)

they are isolated and not coördinated together. In a book on memory which I once read the writer summed up his whole science in one sentence, "Observe, reflect, link thought with thought, and think of the impressions." This is easy to say but not so easy to do, and it is the difficulty of linking thought with thought that makes the tax upon the memory of the medical student so exceedingly great.

Now it seems to me that one of the objects which this Society should set before itself should be not only that of training its members in the art of speaking and writing, of sifting facts and criticising statements, but of linking together and coördinating the data which they are called upon to recollect. When the science of astronomy was younger and the earth was supposed to be the centre of the Universe, the motions of the planets were known with sufficient certainty to calculate eclipses, but they could only be brought into conformity with their supposed relationship to the earth as the centre by the most cumbrous system of hypotheses, and by ideas of cycles and epicycles which must have burdened the astronomer's memory to the last degree. So soon, however, as the sun and not the earth was recognised to be the centre of our system the whole of the observed facts were seen to be in complete harmony, and the relationship, comparatively speaking, as simple as A B C. In our own time we have seen somewhat similar occurrences in regard to the relationship of animals and plants, or I might shortly say, of all living creatures to one another. It used to be assumed that the highest plants and highest animals were to be compared together, but all attempts to make this comparison rationally were unsuccessful; and it was only when an old member of this Society, Mr. Charles Darwin, pointed out that animals and plants had sprung from one common ancestor and had diverged in different directions that the various relationships became intelligible. I well remember that when learning botany it puzzled me greatly to understand why the shape of the ovary, the nature of the ovule and the position of the embryo should be such important characters in determining the genus of plants, and I devoutly wished that plants had been made in such a way that one could settle their nature by characters visible to the naked eye and not requiring a pocket microscope. But the reason for all this at once became evident when the Darwinian doctrine showed that it is in these embryonic characters that relationships are to be discovered and that it is in later development that differences occur. As Haeckel has shown the embryos of the tortoise, the dog, the fowl and the man are all nearly alike in the early stages of fœtal life (Figs. 1, 2, 3 and 4), utterly different as these creatures may be when they have attained their full development—the Darwinian doctrine has thrown a flood of light on the relationship of plants and animals, and shows us that when animals have got as it were on the wrong track, however far they may go in it, they never come to anything very good.

FIG. 5.



Section of head of femur, to show the arrangement of the fibres of bone so as to give strength to it. (From Donald Macalister.)

Nobody expects much of a jelly-fish. Its soft, pulpy substance is incapable of anything but the simplest movement, and no animal that has not something hard to steady it can greatly excel the jelly-fish. The soft molluscs which use their hard casing only for protective purposes, like the oyster and the snail, are bound to stay low in the scale of existence, and the highest mollusc (the octopus) appears to be striving after something better, but only by the aid of an attempt at a skeleton—the so-called cuttle-fish bone. But this has no joint in it, and even the octopus does not amount to much. Articulata with their jointed skeletons have reached such a pitch of social organisation as to be held up for examples to mankind, and ants and bees are regarded by some as almost the mental equals, if not the superiors, of some of the savage tribes of mankind. But the outside skeleton is a sore disadvantage, for the animal must either remain without growing in size, or else it must be periodically

cramped for room, and periodically burst its shell, leaving itself naked, weak and defenceless. The right thing to do is evidently to do like the vertebrata, and have the hard parts inside, and the soft parts outside; but the relationship of these parts is a sore task upon the student's memory, and to many a one anatomy is a burden too heavy to be borne and the unfortunate youth is forced by it to leave the study of medicine and turn his attention to some easier pursuit.

Now, I think that with a little trouble one may find a way of linking anatomical relationships together in a more rational way than that of "Bodfi," a word which in my student days was used as a mnemonic to describe the form of the hippocampal convolution of the brain—backwards, outwards, downwards, forwards and inwards. The word also served to describe the course of the ribs, but Dr. Anderson Stewart has shown us how naturally the peculiar twist the ribs take in a man arises from his upright position. Taking a circular steel hoop, and simply hanging it up by one side, he shows that it

FIG. 6.

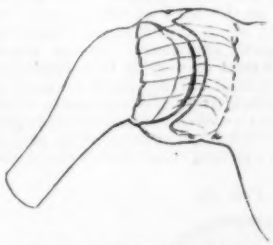


Diagram of shoulder-joint, to show the capsule.

FIG. 7.

Diagram of ligaments of phalanges—a capsule and lateral ligaments.

assumes an oval shape, like that of the thorax of animals going upon four legs and whose ribs hang vertically from the spine. On raising this up by one point it becomes twisted upon itself and takes precisely the peculiar bend which the ribs possess in man. The advantage of a naturally jointed skeleton is so obvious that I need not further discuss it here, nor need I discuss the texture of bone which has been so admirably treated of by my friend Dr. Donald MacAlister of Cambridge. (Fig. 5.)

The ligaments and the joints were to me most puzzling until Dr. Joseph Bell pointed out to me how very simple they were. What is wanted in a joint is a capsule to go round it so as to hold the ends of the bones together and prevent the synovial fluid from oozing out. If the bones have to move freely in all directions they must have a ball and socket joint, as at the shoulder (Fig. 6) and at the hip, and there you will

FIG. 8.

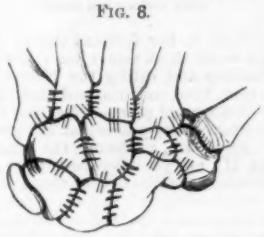


Diagram of the ligaments of carpus, as seen from behind. Besides these there are ligaments passing in various directions, so as to bind the bones more firmly to each other.

have a simple capsule because it cannot be particularly strengthened at one point or another without interfering with freedom of movement. In the case of a hinge-joint, such as those of the fingers or toes, elbows or knees, you will have the capsule remaining thin at the front and back so as to leave the movement free, but you will have it strengthened at the sides so as to tie (Fig. 7) the bones more firmly together, and the stronger parts are called lateral ligaments. If several bones have to be connected each one must be tied first of all to the one nearest it, and then two or three must be tied together at a time, and in this way we get the network of ligaments which we find at the wrist and tarsus. (Fig. 8.) The same thing is true of muscles and, as Professor Goodsir used to point out, the muscles of the back, so perplexing at first, are really quite simple in their arrangement. For each of the spinal vertebræ has to be bent and straightened and has also to rotate more or less upon its neighbours, so as to allow the upper part of the body to swing round upon the lower. We have therefore muscles going from the spine of one vertebra to the spine of the next, and then muscular strips stretching over a few and then over many vertebræ, so as to straighten the spine either in part or whole, as the movements may require. A similar arrangement holds good for the muscles passing from the spines to the lateral processes and which rotate the vertebræ on one another.

But if we are to group the muscles and nerves of the body into one easily remembered whole, we must see what is the chief function to be subserved by them, what is the centre of the little universe which they compose. The function of most imperious necessity is respiration. A man may starve himself to death, but he cannot kill himself by holding his breath. He may refuse food, but he cannot refuse air. In the child the function of respiration is the first which evidences itself after birth, and the muscles which subserve it are more fully developed and more perfectly innervated than others. The nerve channels which supply them are, as it might be termed, more deeply grooved than others, and it is along these channels that superabundant energy overflows in the movements of laughter which evidence joy. This has been very fully and wisely explained by Herbert Spencer in his essay on "Laughter." But the great poet, whose recent death the whole civilised world is now deploring, has classed together in a few pregnant words the channels through which the overflow of energy may run in their proper order. In describing the joy evinced by a baby on seeing its mother, Tennyson says it

> "began
> A blind and babbling laughter, and to dance
> Its body, and reach its fatling innocent arms
> And lazy lingering fingers."

The very parts which attain to the highest development in adult age, and are capable of the finest and most dextrous movements, are the last to develope, and in infancy they are well described as "lazy lingering fingers." They take no part in the function of respiration, but they are of the utmost utility in the function which comes next to respiration in importance—namely, that of nutrition. The animal has to be fed, and all the arrangements of the limbs are more or less subservient to this primary object. In a fish the muscular masses at both sides of the spine bend the posterior part of the body and the tail alternately to one side or another, and so the animal is propelled through the water in search of food. No doubt these same muscles help it to escape danger, but their primary object is to obtain food; and if there be great hunger all animals will strive to feed, whatever be the risk they run in doing so. The movements of fish are simple compared with those of animals with limbs, and especially with those of man. Yet the arrangements of man's body are equally adapted with those of the fish for obtaining food.

There are two prevalent ideas regarding the origin of man. One is that he started full grown and perfectly developed from the dust of the ground, and lived in a garden which he "dressed and kept." The other is the Darwinian one, that man is developed from an arboreal animal like the monkey, though lower than the monkey. It matters not which of these ideas we take, because they perfectly agree that primitive man lived at first in a kind of paradise where he was not exposed to the attacks of wild beasts, and where he fed on the fruit which he plucked from the trees around him. The story of Adam and Eve has got the advantage of not only being more poetical, but it is very much more easy to discuss the actors in the scene by the names of Adam and Eve, than by the terms "male" and "female frugivorous animal."

Let us take then the story from Genesis. One day Eve went into the Garden of Eden—saw an apple upon a tree—plucked it, ate it, and then went to get another for Adam. In trying to analyse the muscles concerned in these acts, the easiest way is to go to your bedroom, strip off your clothes, imitate Eve's action, and as you do so, feel out the individual muscles as they contract under the skin. This plan of learning the muscles is one which I used to follow as a student of anatomy, and I found it a very useful one indeed. If you do this you will find the muscles of the neck, shoulder, arm, fore-arm and hand contracting successively or together in coördinated movements, which are beautifully adapted to

the purposes just mentioned. We might take the muscles which produce these movements one by one, but I think it is easier for the purpose of grouping them, though not so good for the purpose of study in your own room, to consider first of all the motor centres in the brain from which the stimuli proceed. Before proceeding to consider these I wish to draw your attention to the errors into which one may fall regarding the action of muscles as well as of the motions of the planets by regarding them from a wrong point of view. Thus, the action of the tensor vaginæ femoris is usually said to be that of rotating the thigh inwards upon the body and thus turning the foot and toes inwards also, an action which is denounced in all calisthenic exercises. But this muscle was not introduced into the body for the sole purpose of plaguing drill sergeants and dancing masters. As the late Professor Sharpey used to point out, we ought to look at its action from the leg as a fixed point and then we discover its true uses at once. Place your hand at the side of the hip over the muscle and march forwards. You will then find that when one foot is planted firmly on the ground the corresponding muscle becomes tense whenever you lift the other leg and try to advance it. Whenever the other foot is raised the muscle rotates the body outwards on the fixed thigh and thus brings the centre of gravity of the person over the resting foot. If it were not for these muscles we should run a risk of falling down as we lifted one leg instead of balancing ourselves with comfort upon that one which is resting upon the ground.

But we may now pass away from the muscles and nerves to the nervous centres from which they receive their stimulus to action, and whatever doubt may exist in regard to the adaptation of the muscles to the peripheral nerves and the action of plucking and eating the apple, I think there can be no doubt at all that such an arrangement exists in the motor centres of the brain. These centres were localised in the monkey by Ferrier, and it is the difficulty I have had in remembering their position that has led me to arrange them in accordance with some definite movements in a series of actions to which I have found they corresponded. If we start from the posterior part of the second frontal convolution, pass upwards along it and then across to the ascending frontal convolution, follow this downwards parallel to the fissure of Rolando, and then turning the end of this fissure ascend again upwards along the parietal convolution which lies behind the fissure, we find (Fig. 9) that the centres are arranged in the very order required for looking at the apple, stretching out the hand to take it, bringing it to the mouth, separating the seeds and throwing them away. The aim and object of the whole series of actions is to eat the apple, and we find that the centres for doing this are situated exactly where we should expect them—at the very end of the fissure of Rolando. In Ferrier's description we know that the movement which brings the hand to the mouth appears to be repeated on both sides of the fissure of Rolando, but it appears that the part anterior to the former would bring the hand to the mouth with the apple, while the part situated behind the fissure of Rolando would throw the remnants of it away. And here comes in a very interesting point: in order to complete the series of actions necessary for Eve to go and get another apple for Adam you require movements of the leg (Fig. 10), and these are not fully represented on the surface of the brain. But they have been found by Horsley and Schäfer exactly in the place where, according to our idea, they ought to be, at the marginal convolution connecting the first and last centres of which we have just spoken and thus completing the circle of action.

Here I would like to draw your attention to the fact that great painters like great poets often appear to see more than ordinary mortals, and in his lovely picture, "The Fall of Man," which is painted on the walls of the Loggia of the Vatican in Rome, Raphael seems to have almost forestalled the results of physiological experiment. In the mental picture of the scene which most of us must have formed for ourselves it is probable that it did not occur to many of us to pay any attention whatever to the movements of the great toe, and yet in Horsley's diagram of the cortical centres that for the hallux comes forward most prominently, and, as you will see from Raphael's picture,[1] Eve's foot is raised, and the great toe both in her foot and that of Adam is brought into what one would think rather too violent action. In the action of plucking and eating the fruit there is no break between the eyes, head and arm, and that of the mouth and tongue, and in the usual process of eating the actions go on which are necessary simply to repeat the process of plucking and eating. Again, too, in the dog the arrangement is quite different (Fig. 11), and yet it is exactly what one would expect from the different necessities of the animal. In the frugivorous animal the motions are pluck and eat, pluck and eat; but in the carnivorous animal a long chase after the prey is necessary before the animal can bring the jaws into action, and in the dog accordingly we find that the movements of mastication, instead of being arranged in linear series with those of the limbs, are represented at a spot which is somewhat removed from them. In the cortex the centres are so far apart as to be distinguishable from one another; but as the nerve fibres which pass downwards from them to the base of the brain become closely crowded together in the internal capsule localisation is more difficult (Fig. 12), although Horsley and Beevor have found generally that the arrangement of the fibres from before, backwards, corresponds to the arrangement of the centres just described. But as the nerves pass out from the spinal cord to reach the muscles they again become separated and, as Ferrier and Yeo have discovered, the motor roots which enter into the brachial plexus are arranged with a view to

FIG. 9.

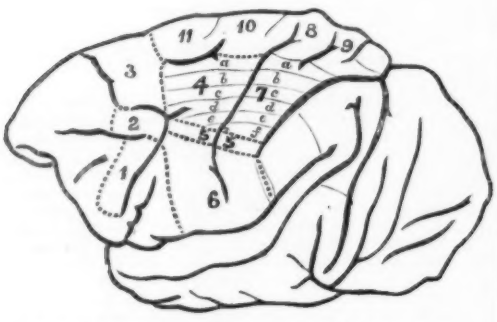
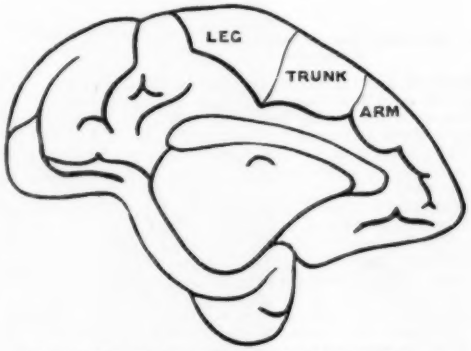


Diagram of the motor centres in the brain, modified from those of Ferrier and Horsley. The motor centres have been numbered so as to represent the successive actions in seeing, taking and eating the apple &c. 1, Eve sees the fruit (eyes turn to opposite side). 2, Looks more eagerly at it (head and eyes turn). 3, Turns towards it (head to opposite side). 4, Puts forth her hand to take it (*a*, movements of shoulder; *b*, of elbow; *c*, of wrist; *d*, of fingers) 5, Luxuriously shuts her eyes, so as to enjoy the sweet morsel more thoroughly. 6, Eats the apple. 7, Picks out and throws away the refuse (*d*, movements of fingers; *e*, of index; *f*, of thumb; *a*, *b*, *c*, as in 5). 8, 9, 10, 11, Went and got another for Adam (8, movements of hallux; 9, of small toes; 10, of knee and ankle; 11, of hip).

FIG. 10.



View of a lobe of the cerebrum from the longitudinal fissure, after Horsley and Schäfer.

[1] We publish with this lecture a coloured reproduction of Raphael's famous picture of the "Fall of Man" with a view of illustrating for our readers the various points referred to in this portion of the lecture.

definite coördinated movements. Now this plexus has been to me, and I think to many others, a perfect perplexity both in its anatomy and physiology. Yet if we take it from the same point of view as we have taken the motor centres, it becomes comparatively simple. We must not forget that although the monkey is so much like man that we can draw most useful deductions regarding human physiology from experiments on these animals, we must not transfer without more ado the results of these experiments to man in their entirety. We must remember that man, although formerly a frugivorous and probably more or less arboreal animal, is now very different from a monkey, and experiments in the laboratory must be compared with and corrected by those experiments which disease makes upon man in producing local-

FIG. 11.

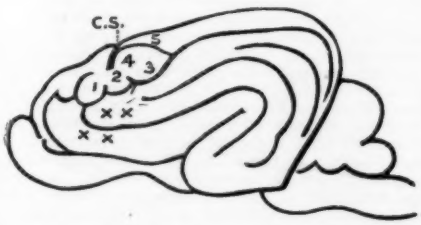


Diagram of brain of dog, after Ferrier. C.S., Crucial sulcus. 1, Movements of eyes, as if to see freely. 2 and 3, Movements of fore-leg, and 4, of hind-leg, as in running. 5, Movements of tail requisite in turning quickly, as when a greyhound is following a hare when it doubles. × × × Movements of mouth and jaws.

ased palsies. I think it very probable that many here would find it difficult to answer the question, What are the movements which result in the monkey from stimulation of the fifth cervical nerve nor might he be able to remember them six months hence even if he learned to-night that they consist in the shoulder and arm being raised upwards and backwards, the humerus rotated outwards, the forearm flexed and supinated, the wrist extended and the tips of the fingers flexed. But he would find it easy enough to remember them, not for six months only, but for the rest of his life, if he were told that they were simply those required to raise the hand in such a way as to grasp an apple hanging straight above him. If you go through these movements you will find that your

FIG. 12.

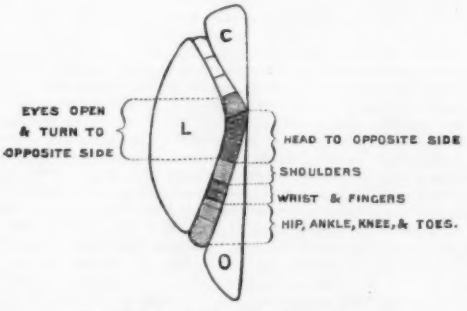


Diagram of the internal capsule.

first impulse is to take a slight breath which is chiefly effected by the diaphragm, and on looking at the brachial plexus you find that the first branch which is given off from the fifth nerve is a filament to the phrenic (Fig. 13). Then, just as you proceed to raise your shoulder, you take a still deeper breath, and this, too, is represented in the plexus by the posterior thoracic nerve, starting from the fifth and sixth nerves and going to the serratus magnus which has little power to raise the ribs and act as an inspiratory muscle while the shoulder is depressed, but will do so when the arm is raised. If your hand is hanging by your side you will find the shoulder slightly drawn backwards by the rhomboid and the arm rotated a little outwards by the infra-spinatus, which is supplied by the supra-scapular nerve. Next you raise your arm and as you do so you will find that unconsciously you bend it and turn it out, you extend the wrist and flex the fingers. The raising of the arm and turning it out is effected by the deltoid and teres minor, which are innervated by the circumflex nerve, while the shoulder is still further raised by the trapezius which gets its nervous supply from a higher source—the spinal accessory. The biceps and other flexors of the arm receive their supply through the musculo-cutaneous nerve from the outer cord. In the movements of the wrist and fingers the fifth and sixth nerves appear to coöperate and those of the fingers are chiefly due to the sixth. The supinators and extensors of the wrist, fingers and thumb get their nerves from the musculo-spiral or its interosseous branch. To resume, the fifth and sixth cervical nerves raise the shoulder, flex the forearm and extend the wrist. The nervous energy passes from them along the upper trunk and outer cord of the brachial plexus to the flexors of the forearm, while the impulses to raise the shoulder, rotate the humerus and extend the wrist and fingers, travel chiefly through the posterior cord by the musculo-spiral nerve and its interosseous branch to the extensors of the wrist and digits. From the fifth and sixth cervical nerves we make a

FIG. 13.

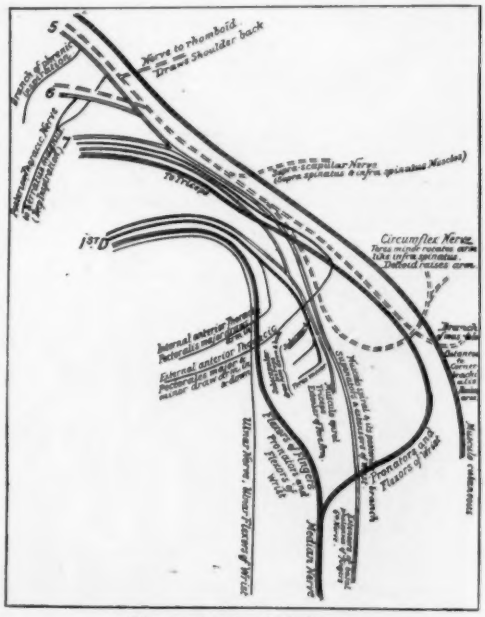


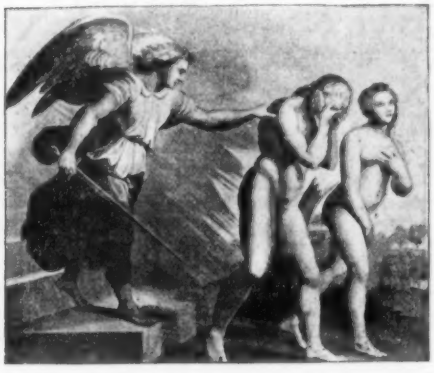
Diagram of the brachial plexus.

jump to the first dorsal, which has an exactly opposite action. The movements it produces are that the hand closes firmly upon the apple, the wrist is twisted round into the prone position and flexed to the ulnar side. The forearm is extended, and the upper arm is retracted in the manner required to pull the apple from the tree. In these movements if you put your hand upon your chest you will find that the pectoral muscles are largely engaged, and they receive their nerves partly from the internal cord of the brachial plexus. Flexion to the ulnar side is produced by the ulnar nerve, and the dragging of the arm down is effected by the subscapular, teres major and latissimus dorsi muscles, which are supplied by the subscapular nerves, and the triceps by which the arm is extended gets its nerve supply from the musculo-spiral. But these movements, especially if executed forcibly, as they would be if the apple were firmly attached, would bring the hand below the level of the mouth, and the prone position would keep the apple away.

We must now go back to the sixth cervical nerve, which we find will rectify this action, for it raises the arm inwards and upwards with the forearm flexed, so as to bring the hand to the mouth, supinated, and with the wrist and basal pha-

langes extended, so as to present the apple comfortably for eating. In effecting this movement the nervous impulses travel by the posterior thoracic circumflex, musculo-cutaneous, musculo-spiral and median nerves to the serratus magnus, deltoid, biceps, brachialus anticus, supinator longus and extensors of the wrist and basal phalanges. The position of Adam's left hand in Raphael's picture shows this action in its middle stage, before it has carried the hand to the mouth. The few last phalanges of his fingers are flexed and we may suppose that the flexion is effected by means of the median nerve, but it is just possible that their flexion may be due to mechanical pulling on the tendons by the extension of the wrist and basal phalanges just as the hand is opened in the well-known schoolboy trick by bending the wrist forcibly inwards, and thus mechanically stretching the extensor tendons of the fingers. In this picture the action of the serratus magnus muscle in drawing forward the shoulder and rotating the scapula so as to raise the shoulder is well seen and the action of the muscle appears almost exagerated. We have already found that it gets a branch from the fifth nerve as well as from the sixth. We may fairly suppose that the branch from the fifth is the channel for the impulses which cause the muscles to act as an inspiratory muscle when raising the arm to pluck the apple, while that from the sixth serves to excite the muscle to pull the shoulder forward. Now, here we have got apparently the movements required for plucking the apple and conveying it to the mouth, and yet we have got two nerves which seem superfluous, the seventh and eighth cervical. We may suppose the seventh to be brought into play later on, when the first pair recognised their nakedness, for its action in the monkey is to bring the hand over the pubis in the position of Eve's, as represented by Raphael in the expulsion from Paradise (Fig. 14). We cannot in this scheme find the place for the eighth nerve in the entirety of its action, as observed in monkeys, but the first part of the movement which it produces may be used in throwing away the refuse of food.

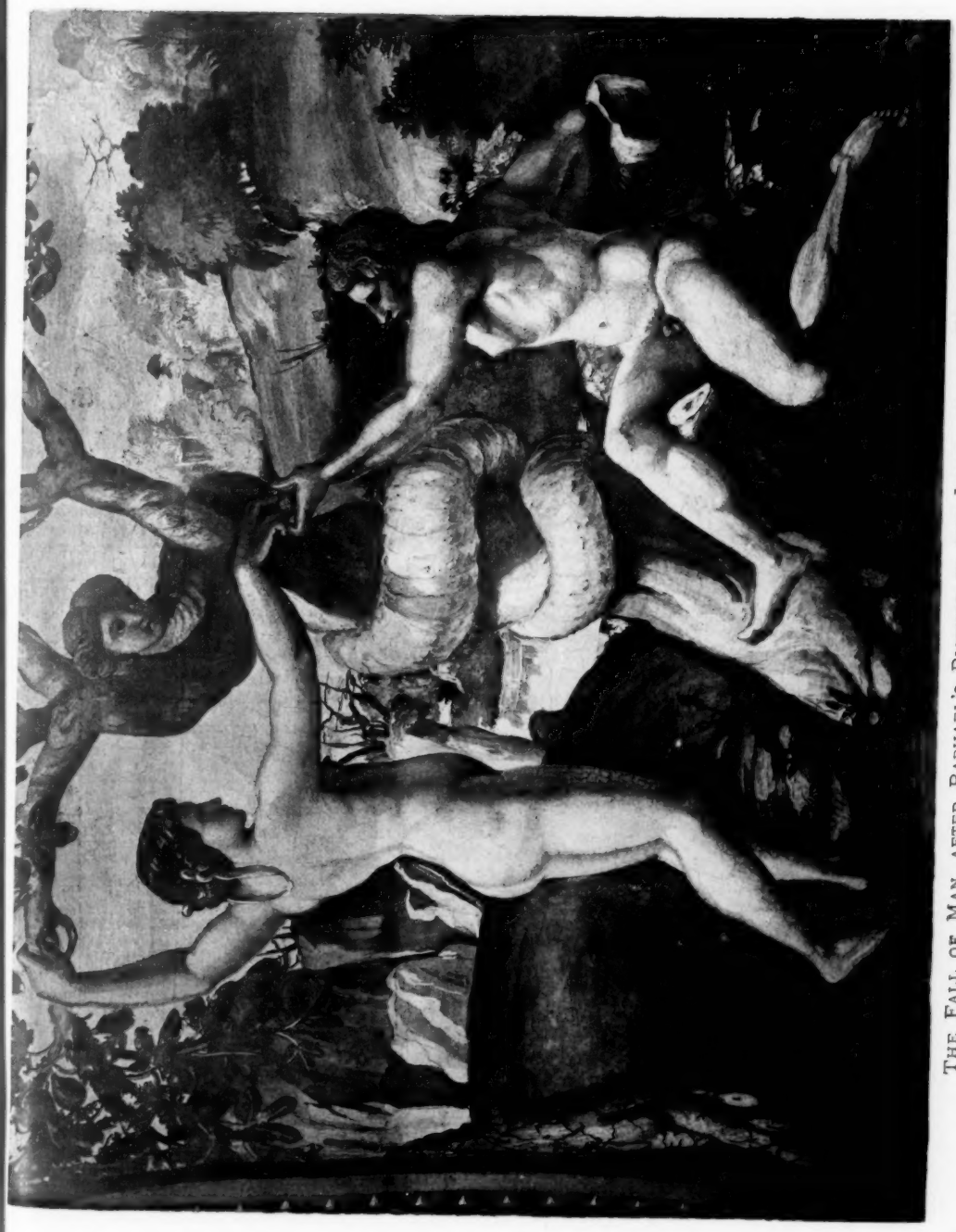
FIG. 14.



Expulsion from Paradise, after Raphael. The position of Eve's right hand shows the action of the seventh cervical nerve.

The mere fact that I have been unable to work this last nerve properly into this scheme shows you how imperfect it is, yet I trust that as an attempt to hang together the facts, anatomical and physiological, it may not be without service as an aid to your memories; and still more as an inducement to you to find out the true relationships of the different parts of the body, such as those of the lumbar plexus and the anastomoses of the vagus and sympathetic. But you will say to me that, although anatomy is doubtless hard, materia medica is to some people even harder, and the dry details less interesting to many a student even than those of anatomy, while they have not the merit of possible utility to recommend them. You may ask me if I cannot show you some way of easing the burden of materia medica. With such a request I deeply sympathise, and if I had my way I should sweep away the whole subject of materia medica as understood in some places, although not, as I believe, understood here, and replace it by pharmacology, therapeutics and practical pharmacy. Therapeutics, the cure of disease, is the aim and object of medicine, except in so far as prevention is concerned. A patient comes to you for relief of his discomfort or pain, for restoration of his health or prolongation of his life; and it matters but little to him whether you can describe the microscopic appearances of his various organs, if you cannot afford him any help. But it is little or no use to know the mere names of the plants whence drugs are derived, more especially as these names vary from one Pharmacopœia to another, while the plant remains the same and the change of name in the Pharmacopœia does not alter its action in the least. It is useful for the druggist to recognise a medicinal plant, though it is but little use for the physician. But it is of great importance that you should be free from the reproach of "pouring in drugs of which you know little into bodies of which you know less"; that you should thoroughly know pharmacology and have a clear understanding of what your drugs will do, so that you may know precisely what to give and when to give it, when to increase your dose and when to withhold your medicine entirely. Pharmacology and rational therapeutics are inseparable and without the former the latter is impossible. It is also very important that you should know how to prescribe efficiently, and this can only be learned in a practical course, in which one can become acquainted with the qualities and interaction of drugs in such a way that when they are mixed they will not form disgusting, inert or dangerous compounds. It is clear that this part of the subject is closely connected with chemistry and botany and as a subject of examination should come as close after them as possible, while it is obvious that the action on the healthy body or pharmacology and that upon the diseased body or therapeutics can only be understood after one has learned the functions of the body in health and their modification in disease. But even were the whole of the materia medica (understanding by this term the origin and physical characters of drugs) swept away the subject of pharmacology has grown so large that it is exceedingly hard for a man to remember the actions even of the most important drugs, and the only way of rendering it possible is to have them grouped together, so that one description will do for many drugs which vary from each other only in a slight degree.

Attempts at such a classification have been made by Bucheim and his scholars and before very long, I think, it is very likely that the arrangement will be much simplified. Drugs, after all, are things which act upon the organs of the body and upon the substances which compose those organs. What these components are we may see readily from a glance at the food required to renew them as they waste away, and a typical meal consists of a beefsteak, with fat or butter, bread or potato, salt and water. The albumen of the beefsteak we find chiefly represented in the muscles and glands, while fat is found largely in the brain or nerves, and carbohydrates, salt and water occur everywhere throughout the body. In classifying drugs we find that some of them act more particularly upon the albuminous and others upon the fatty principles of the body, while others affect both. With such a division we may group each of the drugs that act upon our muscles and those that affect the nervous system, afterwards subdividing them according to the particular kind of action that they exert and the principal parts of the muscular, nervous or glandular systems which are chiefly acted upon. Thus, as Professor Harnack has pointed out, nearly all drugs which act as emetics have likewise the power of paralysing muscles when locally applied, and, as I indicated about two years ago, the whole class of cardiac tonics which cause contraction of the frog's heart, with stoppage in systole, are also more or less local anæsthetics. One group, containing physostigmine, muscarine and pilocarpine, stimulates secretion and causes contraction of involuntary muscular fibre, while another, containing atropine, hyoscyamine and hyoscine have exactly the contrary action. In this group the action upon the nerves, the glands and involuntary muscular fibre is well marked. In the lowest of the group, atropine, there is little hypnotic power; in hyoscine this power is greatly developed, and in so far we get the connexion with another group—viz., that of morphine. Morphine is almost a pure hypnotic, but if we take the alkaloids of opium, we shall find they form a series in which the hypnotic power becomes less and less, while the tetanising power becomes greater and greater, until at last in thebaine we have a substance which acts almost like strychnine. In cannabis indica we have the same thing, though to a less extent, for cannabine is hypnotic and cannabi-tetanin is



THE FALL OF MAN, AFTER RAPHAEL'S PICTURE IN THE LOGGIA OF THE VATICAN, ROME.

The position of Eve's left arm illustrates the action of the fifth cervical nerve, and that of her left hand the commencement of action of the first dorsal nerve. The position of Adam's left arm shows the action of the sixth cervical. The action of the hallux is well shown in Eve's right and Adam's left foot.

TO ILLUSTRATE DR. LAUDER BRUNTON'S ADDRESS ON THE CORRELATION OF STRUCTURE, ACTION AND THOUGHT.

strongly convulsive. It seems very strange that you should not only get such well-marked diversity of action in the alkaloids of the same plant, but should sometimes, as in jaborandi, find that two alkaloids, pilocarpine and jaborine, are almost completely antagonistic. This curious condition has been rendered much more intelligible by the admirable researches of two former presidents of this Society (Professors Crum-Brown and Fraser), whose work has also afforded a basis for a rational knowledge of the relationship between chemical structure and physiological action. They showed that methylating strychnine converted it from a convulsing into a paralysing poison.

But there is another very strange point to be considered—viz., that many, if not all, drugs have an entirely different action in small doses from what they have in larger ones. This and the tolerance of drugs are exceedingly difficult to understand. The extent to which tolerance is carried is sometimes incredible. Although the subcutaneous injection of a grain of morphine would be certainly very dangerous, if not fatal, to any one of us, yet I have seen a case in which the daily dose of morphine injected subcutaneously varied from twenty-five to thirty-two grains. Now I cannot explain this—I can only throw out as a suggestion that the explanation is to be found by considering the action of the drug upon individual cells. I need not here discuss the nature of the cell. This has been done very much better than I could possibly do it by Sir William Turner. But I would remind you that both aniline colours and drugs have a tendency to fix upon one part of a cell rather than another. In addition to this selective action it is evident that they will come in contact with the surface of the cell sooner than with its interior, and if they be supplied to the tissues in a small quantity they may affect the surface of the cell only. One of the best examples of tolerance that I know is that of a salmon coming from the sea into fresh water or from fresh water into the sea. The cells of its gills become gradually inured to the presence or absence of salt during the passage of the fish through the brackish water. You can readily see that at first only the external part of the cell would be affected by the salt and the sudden application of a strong solution might destroy the balance between the outer and inner parts of the cell and thus destroy its life. But by-and-bye the whole cell would participate and the amount of the salt could be gradually increased to a great extent without greatly disturbing the balance between the interior and exterior of the cell. In the same way a small quantity of morphine coming in contact with the external part of the brain cell only, might greatly modify its function, while if the cell was, as it were, thoroughly soaked in the poison an enormous quantity of morphine would not make such a difference between the interior and exterior of the poisoned cell as a small quantity would do in the case of the unpoisoned one. Such a subject as immunity from poison is excessively interesting, more especially as now we are beginning to see that immunity from disease may in some cases at least depend on the power of the organism to resist the poisons formed by microbes. But I have already trespassed too long upon your time, and I must conclude. You may possibly think from what I said at the beginning of this paper that I wish to abolish examinations. I do not, because I look upon them as a necessary evil, but I should wish greatly to modify them and to render them more a test of a man's capacity for applying his knowledge than of his simple memory for facts. When I was in India three years ago I was told of a native medical student who had been brought before his examiners for copying. He denied the charge, but the examiners said, "How is it possible that you could reproduce page after page of a text book verbatim unless you had copied?" The student replied, "I will do it again if you will give me pen, ink and paper": and he did so in the presence of the examiners. Yet although he reproduced the text book verbatim the knowledge that such men as he have is generally useless, they could not put it into practice, and although they may write down a whole treatise on surgery, they will sometimes stand helpless when called upon to do a simple operation. It is just a little over thirty years ago that I attended Professor P. G. Tait's course of Natural Philosophy, and his examinations seemed to me to be perfect models of what examinations ought to be. As an example I may give one of his questions. "Suppose a tumbler filled with water with a cork fastened to the bottom inside were equipoised on a balance, would the scale containing the tumbler fall or rise if the string were cut and the cork allowed to come to the top of the water?" The answer given by some was that the tumbler would be heavier, because the cork would no longer be trying to get to the top of the water, and thus pulling up the tumbler. For this Professor Tait gave nothing. Others, of whom I was one, said there would be no change, because nothing had been added to or taken from the tumbler. This answer was allowed full marks, but not a man in the class gave the complete answer, which was, that the tumbler would be heavier, because if the string was cut, the space at the bottom of the tumbler would be filled with dense water instead of light cork, and thus the greater mass being nearer the centre of the earth, would be multiplied by the greater attraction while the lesser mass of the cork would be multiplied by the lesser attraction. Now, demand creates supply, and the questions set by an examiner tend to raise the standard of knowledge in the student; but supply may also create demand, and just as an article previously unknown when presented to the public may take readily, so knowledge possessed by a student may lead to the improvement of examinations. At present it would be hopeless for an examiner to put such a question as this to a medical student: "Describe the relationship between atropine, morphine and strychnine; mention the chemical changes required to convert a convulsing into a narcotic poison, and *vice versâ*; and tell from the chemical structure of an alkaloid, of which the structural formula is given, what its physiological action must necessarily be." And yet such a question as this will, I have little doubt, be perfectly fair some years hence. At present it would be absolutely useless to put it, because one could not get an answer to it. You will not find an answer in any text-book and very probably you will not find a single man living who can answer it thoroughly; but it is just for such a Society as this, composed as it is of men of keen and active brains with overflowing energy, ever ready to propound a theory of their own or demolish one proposed by others, and willing to do experimental work for either the one or the other purpose—it is for such a Society as this and for such men to provide that knowledge which shall make such questions possible, and when they are possible we may hope that the time is not far distant when medicine will no longer be an art, but will become a science.

Clinical Lecture
ON
STERNO-MASTOID TORTICOLLIS.

Delivered in the Theatre of St. Thomas's Hospital on Dec. 8th, 1892,

BY WILLIAM ANDERSON, F.R.C.S. ENG.

THE names torticollis, caput obstipum[1] and wryneck, like many others in surgery, merely express a symptom without suggesting anything as to the pathological nature of the condition designated. In their wider signification as a rotatory distortion of the neck they may indicate a merely temporary malposition of spasmodic or rheumatic origin, or secondary to certain defects of the muscular apparatus of the eye, or to inflammatory and other tumours in the neck; or a permanent affection due to disease of the vertebral column or cicatrisation after injuries attended by loss of substance in the integumentary structures; but the terms when unqualified usually imply a special contraction arising from a defect in the sterno-mastoid or, much more rarely, in other muscles of the neck. It is to the sterno-mastoid torticollis that this lecture is devoted.

The familiar form of wryneck is well illustrated by the patient upon whom I operated a few days since, and a recapitulation of the details of this case will serve as an account of a typical example. The patient was a girl aged seventeen, of healthy aspect but of small physique. The deformity had existed from birth, but there was no history of any difficulty in connexion with delivery or of a sterno-mastoid tumour observable afterwards. The neck was flexed and lateralised towards the right side, the face looking directly

[1] .... "Davus sis comicus; atque
Stes capite obstipo"—Horace, Sat. ii. 7.

forwards and rotating easily towards the left, but could not be turned in the opposite direction. The right sterno-mastoid was sharply defined, especially during the movements of the neck, and its muscular belly appeared to be smaller as well as shorter than that of the opposite side. The right shoulder was slightly raised. On looking at her face from the front there was a marked asymmetry, the right eye being about a third of an inch below the level of its fellow, and the whole of the right side of the cranium and face smaller than the left. The spine showed a slight but distinct double curvature with a concavity in the cervical and upper dorsal region turned towards the affected side, and a compensating dorso-lumbar flexure in the opposite direction below. There was no alteration of the visual axes and none of the dysphagia occasionally noted in severe cases.

Here the diagnosis of a congenital or infantile sterno-mastoid torticollis was very easy. The permanency of the distortion and the presence of cranial asymmetry proved that it was not a spasmodic condition. The splenius, scaleni, trapezius, platysma and other muscles which are occasionally the seat of changes leading to a torticollis appeared to be normal, and there was no reason to believe that any other muscle besides the sterno-mastoid was implicated farther than by the small but inevitable adaptive changes that occur in connexion with long-continued malposition of the parts. Finally, there was no tumour on the neck and the cervical vertebræ were not diseased. To contrast with this case I may mention a patient who presented herself here a short time ago and who may have been seen by some now present. This was a young girl aged sixteen, who complained of a torticollis of six months' duration. Her left sterno-mastoid was in a state of strong contraction, producing a deformity very similar to that just described, but there was no facial or cranial asymmetry, and on examining the neck more closely the trapezius of the same side was found to be also contracted. We had here to deal with a condition of spasm propagated to the muscles through the spinal accessory nerve, and on administering an anæsthetic the deformity immediately disappeared.

The characters of sterno-mastoid torticollis are sufficiently pronounced to fix the attention of even an unscientific observer, and there can be no doubt that the affection is not a modern one; but curiously enough it is not described by any of the ancient writers, although it must have been quite familiar to them. The first reference to it, so far as I have been able to ascertain, was in the works of the Dutch physician Tulp (whose features have been immortalised in Rembrandt's "Lesson in Anatomy"). He mentions an example of the deformity and its cure by a surgeon of whom nothing remains except the Latinised version of his name—Minnius; and it is interesting to hear that Minnius had gained a reputation for treatment of such cases, as this makes it probable that there were in those and older days surgical specialists for the cure of wryneck, just as there were specialists for hernia, stone and many other conditions with which orthodox surgery was often afraid to meddle. Cases were also quoted by Tulp's pupil Meek'ren and by his friend Roonhuyze, but it was not until the last century that the complaint became an item in the surgical text-book, and even Samuel Sharp, writing about 1740, did not consider that congenital wryneck ought to be treated by the knife. It was in fact only with the great French surgeon Dupuytren that the serious consideration of the surgery of the disease began.

At the present day we know a good deal about torticollis, but there is still a great deal that we have to learn. We have a mass of experience as to the phenomena and treatment of the affection, but its pathology is still involved in obscurity and disputation. It is known that the characteristic deformity is seen at birth or very shortly afterwards, though there is still a lack of precise observation on this point, and there can be no doubt that in a considerable proportion of cases the condition has arisen during intra-uterine life. It is more common in girls than in boys, three or four times more frequent on the right side than on the left, and is almost invariably single. There have been four theories of causation framed to account for it, three dealing chiefly with cases of truly congenital wryneck and one touching only upon those in which the foundation is laid by an accident of parturition. One view attributes it to a simple arrest of development in the face and neck. A second traces it to a disease of the nerve centres affecting the side of the neck secondarily, but as the nature of the disease has not been explained the hypothesis is at least a very incomplete one. A third, and perhaps the oldest, view regards the shortening of the muscle as the result of a vicious position of the head of the fœtus *in utero*. A similar hypothesis has been offered in the case of club-foot and other deformities, but it appears very unsatisfactory; for if the mere attitude of a part during intra-uterine life could determine a permanent shortening of the muscles relaxed by the posture scarcely a joint in the body would be free from distortion at birth. A fourth explanation, advanced by Stromeyer, assigns as the essential cause a laceration of the muscle during parturition, an accident that is said to be particularly liable to occur—although we do not know in what proportion of cases—in breech and foot presentations, in which the parts about the neck are subjected to a good deal of stretching in the course of delivery. This theory is very plausible, but the evidence connecting the two conditions is still far from complete. The out-patient room has afforded us many examples of the so-called congenital tumours of the sterno-mastoid, which were formerly supposed to be of syphilitic origin, but are now, and probably with justice, believed to be due to an effusion of blood in the sheath of the muscle and consequent upon a rupture of some portion of the muscular belly. Given such an accident, a permanent defect of the muscle appears very probable; but few, if any, of these cases have actually been traced on to a sequent deformity, and Jeannel and Petersen have brought forward arguments to show that such an injury never leads to wryneck. Moreover the investigation of the history of a case of torticollis seldom if ever educes any clear account of an antecedent sterno-mastoid tumour. At present we can only believe that a very small proportion of the examples are due to this accident.

A few words may be said as to the comparatively rare cases of acquired sterno-mastoid torticollis. Syphilitic myositis undoubtedly explains a few. Tumour of the muscle may in like manner cause more or less distortion of the neck, as in the case of spindle-celled sarcoma that recently left the hospital. There the entire muscle was excised with the growth and the wryneck disappeared, and it is worthy of note that the unbalanced action of the opposite muscle has not set up any deformity. Traumatic injuries to the muscle may in like manner induce torticollis, but the cases are very rare.

The treatment of sterno-mastoid torticollis is conducted upon principles similar to those which guide us in dealing with other myopathic deformities. In the slighter cases, if observed sufficiently early, a cure may often be effected without operation by persevering manipulation of the head aided by the use of a suitable apparatus, but the majority of examples brought under the notice of the surgeon require the section of the affected muscle or its tendon.

The earliest operation on record—that of Minnius in the case reported by Tulp—consisted of division of the muscular fibres of the sterno-mastoid by an open wound; the section being very carefully performed, we are told, in order to avoid injury to the carotid artery and jugular vein. The section of the muscular belly has been revived in recent years and many surgeons have spoken very highly of the results. I have performed it only on one occasion, and although the experiment was perfectly successful and the immediate effect was decidedly greater than after section of the tendon I have not cared to repeat it. The almost immediate relation of the carotid sheath to the deep surface of the muscle increases the danger and difficulty of the operation; a scar is left in an exposed situation and the portion of the muscle below the line of section will in all probability undergo atrophy in consequence of the section of its nerve. If this plan be set aside only one other seat of operation remains, the tendons of origin, because the division of the muscle near the base of the skull, although possible and not dangerous, would involve a large wound and would offer no compensating advantages.

The section of the tendons of origin was performed in the seventeenth century by Flurianus, a Dutch surgeon (whose name, like that of Minnius, exists only in its Latin form), the instrument used being a sharp pair of scissors; and Samuel Sharp in the last century described an open operation for the same purpose, but as he regarded it as unsuitable for long-standing or congenital cases it was little used. It is probable, indeed, that most cases of wryneck were either treated with apparatus or neglected altogether, until the example of Dupuytren and the powerful advocacy of Dieffenbach and Stromeyer led to the subcutaneous method, which thenceforth held its ground unchallenged until antiseptic surgery brought the original plan again to the front.

In the milder cases of wryneck the sternal head alone requires division, and for this there can be no doubt that the

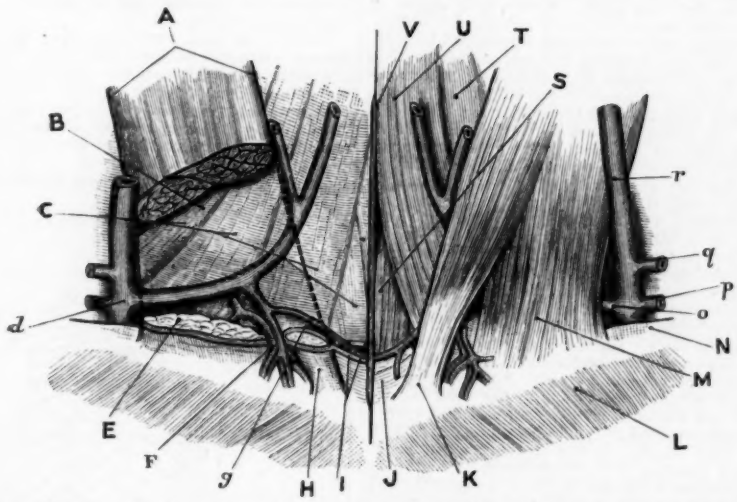
subcutaneous operation as advised by Dupuytren is the best. It leaves only a minute scar, and if it be recollected that this portion of the tendon is attached to the front of the sternum well below the upper border of the bone and that it is isolated by a complete fascial sheath it will be seen that its division is both safe and easy. An open wound here could give no advantage.

When the clavicular head is also involved the question of operation becomes more complicated. It will be remembered that this tendon arises from the upper border of the inner third of the clavicle, while the muscular fibres connected with it are divided into two separate bundles, one passing to the mastoid process (cleido-mastoid), the other to the occipital bone (cleido-occipitalis). Immediately behind it is a well-marked cellular interspace containing some fat and connective tissue, with the anterior jugular vein passing to its termination in the external jugular trunk and a small branch of artery, usually from the supra-scapular, which eventually pierces the interval between the two heads of the muscle and supplies integumental structures. The posterior boundary of the space is formed by a sheet of fascia enclosing the sterno-hyoid and omo-hyoid and filling up the triangle formed between these two muscles and the clavicle, to which the fascia is attached below. There is thus a kind of wall separating the seat of operation from the deep cervical and mediastinal spaces and from the great vessels and nerves of the neck, the inner portion of this being both muscular and fascial, while the outer part is composed of fascia only. At the outer border of the tendon is the external jugular vein, receiving the anterior jugular on the inner side and the transversalis humeri and transversalis colli veins on the outer side before piercing the deep fascial wall to enter the subclavian vein. From this it will be seen that the danger of wounding the large vessels at the root of the neck is very small, but both the anterior and external jugular are exposed to injury, and it is quite possible that the bleeding from either might be alarming. The small artery would probably give little trouble.

In dealing with the clavicular head the surgeon has the choice of two plans of operation, by the open method and by subcutaneous section. The open method has the claim of antiquity, but there is no doubt that it was rightly abandoned in favour of its younger rival so long as the wound was liable to infection. Antiseptic surgery has now, however, placed it upon a different footing, and many surgeons, including Volkmann, Heinecke and Billroth, have given it their preference because it allows the immediate division of the fascial tissues which resist extension. The original operation of Samuel Sharp required a transverse incision through the skin of a size somewhat more extensive than the breadth of the muscle and about one-third of its length from the clavicle; a probed razor was then passed underneath the muscle and drawn outwards through the whole tendon; finally the wound was filled with dry lint to prevent the ends of the muscle from growing together. This procedure was amended by Benjamin Bell, who divided the tendon from without inwards, and it is his plan that is most favoured at the present day, the principal difference between the modern and ancient methods being the employment of antiseptic precautions.

The subcutaneous operation is usually practised by making a puncture at the inner or outer border of the clavicular head and introducing a blunt-pointed tenotome, the edge of which is turned outwards towards the skin. The section is then made in the usual manner with a careful sawing motion, the finger being laid lightly on the skin opposite the point of operation. The sensation of yielding is very obvious and when the last fibres are cut a distinct separation of the parts is at once apparent. The amount of gain, however, is often rather disappointing because the fascial and other structures behind the muscle have undergone adaptive changes which enable them for a time to offer more or less resistance to extension; but these tissues do not offer any permanent opposition and the cure may always be safely completed by judicious after-treatment. The internal puncture is believed to be safer than the external, as the anterior and external jugular veins are more out of harm's way than when the knife is introduced at the outer border of the muscle between the external jugular vein and the tendon. I have, however, adopted a modification of the latter plan, making a vertical incision of about half an inch in length over the outer border and dissecting down until the shining fibres of the tendon are exposed. The blunt-pointed knife may then be passed close to the deep surface of the tendon, preceded or not by a director, and the risk of wounding either of the veins is thus reduced to a minimum.

THE ORIGIN OF THE STERNO-MASTOID WITH THE RELATIONS OF ITS TENDONS.



RIGHT SIDE OF NECK.—A, Sterno-mastoid (cut). B, Omo-hyoid. C, Fascia investing the sterno-hyoid and omo hyoid and filling up angular interval between them. E, Clavicular head of sterno-mastoid with fascia. *f*, Perforating branch of the supra-scapular artery. *d*, External jugular vein receiving anterior jugular and external tributaries. *g*, Supra-sternal vein running between layers of the sterno-mastoid fascia.

LEFT SIDE OF NECK.—I, Pectoralis major. K, M, Head of sterno-mastoid. N, Clavicle. S, Sterno-thyroid. T, Omo-hyoid. U, Sterno-hyoid. *o*, Anterior jugular vein. *p*, Supra-scapular vein. *q*, Transversalis colli vein. *r*, External jugular vein.

The external jugular can scarcely be hurt, and should the anterior jugular be punctured the bleeding may be easily arrested by a firmly applied compress.

In comparing the open and subcutaneous methods we must admit that for safety, precision and completeness the former is the better, but it has the disadvantage of leaving a scar that might be very objectionable in after years in the case of a girl. It would hence perhaps be better to preserve the subcutaneous plan for female patients—in whom the vessels are smaller and the risks of hæmorrhage less—and practise the open operation upon boys.

The operation completed and the wound dressed, the important question of after-treatment arises, for by no method of section can the deformity be immediately righted, and we must always be dependent for the complete restoration of symmetry upon measures which stretch the structures that our operation has left untouched—the muscles, ligaments and fasciæ that have adapted themselves to the contracted position of the neck. As a rule it is desirable to leave the parts undisturbed and without any extension apparatus for a week after the tenotomy, and then the completion of the work of cure may be undertaken and carried out perseveringly for two or three months. We have for this end a variety of mechanical appliances and of exercises in which both surgeon and patient can play their parts. Firstly, with regard to apparatus, the embarrassment of choice is somewhat serious. Such a terrible complication of cuirasses, gorgets and helmets, with screws and straps and buckles and bars and rachets, has been appended to this innocent little neck section that their representations in the catalogues of the French and English instrument makers suggest rather the defensive harness of a Crusader than the gentle agencies of coercion required to right a few recalcitrant muscles. Fortunately there are simpler means which achieve the desired end, and of these the simplest and the best is probably that recommended by Little. "Apply a long strip of adhesive plaster around the forehead and occiput, the maintenance in position being better secured by a bandage passed over the vertex and beneath the chin, the two being pinned together where the one passes over the other above the ears. Next attach around the waist a broader band of adhesive plaster, not so tight as to interfere with the movements of the ribs; over this a turn or two of calico roller bandage; the two should be fastened together by a stitch here and there. The surgeon has now two circular bandages, the one around the forehead and the other around the waist, which are not likely to slip if properly applied. He should then sew a strip of tape to the head bandage directly above the ear of the unaffected side and carry it diagonally across the trunk to the opposite side of the waist bandage and there pin it. By this means the left mastoid process (we are speaking of wryneck caused by contraction of the right sterno-mastoid) will be drawn towards the right sterno-clavicular articulation, the original wryneck will be removed and the chin brought to the median line, or in young and flexible subjects even across it towards the affected side, constituting a wryneck in the opposite direction." This I have found so satisfactory that I have in recent years adopted only one other method—that in which apparatus of all kinds is discarded; and in suitable cases—that is to say, in patients who are old enough and have the will and power to assist in their own cure—the latter plan, which is followed by Mr. Edmund Owen and others, is very successful. The patient is directed to carry a weight in the hand of the affected side in order to bring down the clavicle, and to practise sedulously the rotation of the face towards the right shoulder (in right side contraction), with the ear downwards towards the left shoulder and the neck extended, the exercises being tried before a mirror and repeated as often as possible. At night he is advised to sleep on the affected side with the head resting upon a high pillow. In addition passive manipulation is of great value and should be carried out daily by the surgeon or an assistant, the movements always aiming at the widest possible separation between the mastoid process and sterno-clavicular joint of the affected side. By these means we may always calculate upon restoring the neck to its proper line except in cases in which the operation has been delayed to a relatively advanced age—that is, twenty or upwards—and even in these a very great improvement may be looked for. The asymmetry of face, unfortunately, is not amenable to treatment, but it is certainly less conspicuous after the neck distortion has been relieved.

CLINICAL AND THERAPEUTICAL NOTES OF TWO CASES OF AORTIC ANEURYSM.

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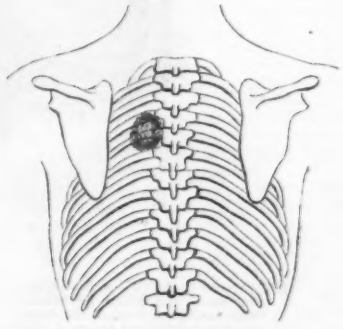
THE following two cases of aneurysm of the thoracic aorta seem to possess points of interest which render them worthy of record. In both cases the treatment followed was that laid down by the late Mr. Tufnell of Dublin, combined with the administration of the potassium iodide, as advocated by Nélaton, Begbie, Roberts, Balfour and others, and, as far as the aneurysmal disease was concerned, the result was in each case satisfactory. The first case, however, terminated fatally from pulmonary phthisis, the symptoms of which were masked during the lifetime of the patient by those of the aneurysmal tumour. In the second case the disease was apparently cured and the patient was discharged from hospital with a greatly reduced area of dulness over the seat of the consolidated aneurysm, which had then lost its pulsation and murmur, and he remains up to the present time in good health.

CASE 1.—A man, aged forty-eight, was admitted to the Seamen's Hospital on Sept. 27th, 1890. No hereditary predisposition to any disease was traced in his family history. He suffered from primary syphilis, which was followed by constitutional symptoms, twenty years ago, and has indulged rather freely in alcohol. On admission he presented an anæmic appearance, and had of late lost flesh considerably—over 30 lb. in weight, he stated, in the previous eighteen months. (Fig. 1.) He complained of pains in the back, on the

FIG. 1.



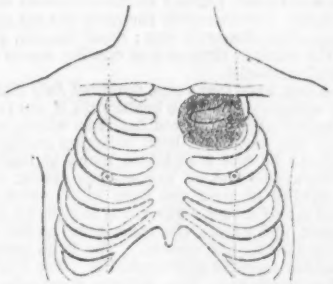
left side, opposite the fourth and fifth dorsal vertebræ; he had a metallic cough; sudden attacks of dyspnœa, which were of more frequent occurrence when up and walking about than when lying down; pain in the left shoulder, shooting down the inner side of the left arm and occasionally, to a lesser extent, down the right arm also. For the previous four months he had felt a "beating sensation" in his chest under the left collar-bone, and had noticed also that his voice had been more or less hoarse for two years past. No dysphagia.

Physical Examination.—His hair was turning grey and he looked older than his years; there was no difference in the size of his pupils; his left radial pulse was more feeble and of less volume than that of the right, but the beats were synchronous; his left hand felt colder than his right, both to others and to the patient himself. A pulsating prominence was obvious on the front of the chest beneath the inner half of the left clavicle; the superficial veins over the upper part of the chest were enlarged, especially those on the left side; the left jugular vein was very prominent; the expansion of the left chest on inspiration was limited, especially at the apex. (Fig. 2.) There was marked dulness on percussion at the left apex, extending from the middle line of the sternum to the middle of the clavicle, over an area the vertical diameter of which measured about three inches; the upper third of the left chest behind was also somewhat

dull on percussion, but elsewhere it was normal. There was no displacement of the apex-beat or any evidence of hypertrophy or dilatation of the heart, the sounds of which were normal. Over the tumour (or pulsating prominence) there was a loud and harsh systolic murmur which was audible in front and also opposite the fourth and fifth dorsal spines behind. The diastolic shock was both audible and perceptible in front. On auscultation the breath sounds were normal over the right chest, but on the left side they were faint and somewhat tubular in character, and at the apex moist sounds were audible behind. (Fig. 3.) There were no other symptoms or indications of any importance. The patient remained in hospital from Sept. 27th, 1890, until his death on Jan. 18th following.

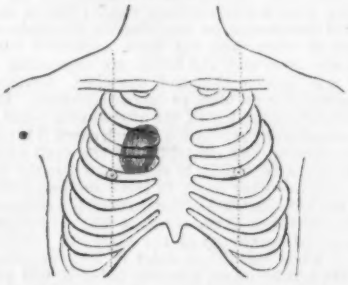
Treatment.—The demand which the restriction of food, particularly of the fluid part of it, would make on the patient's

FIG. 2.



fortitude was clearly explained to him and he expressed his willingness to submit to it. It was accordingly commenced on Oct. 7th, 1890, ten days after the patient's admission to hospital, the fluid part of his diet being then reduced to twelve ounces and the solid part to sixteen ounces. Ten grains of iodide of potassium in water, three times daily, were begun on the same day. Strict rest in bed, it is needless to add, was an essential point. The action of the bowels was aided, when necessary, by the use of laxatives. Occasionally, when restless or sleepless, bromide of potassium was added to the iodide mixture. On the 20th the amount of fluid was reduced to ten ounces and on the 24th to nine ounces, which consisted of two ounces of claret, two ounces of water and five ounces of tea. On the 29th the patient expressed himself as much better and as not feeling reduced or weakened

FIG. 3.



by the restricted diet. The pulsating swelling beneath the clavicle was perceptibly smaller and no bruit was audible over any part of it. The diastolic shock had also disappeared. On Nov. 7th the patient was weaker and the juice expressed from four ounces of raw meat was added to his diet. No trace of the left radial pulse could be felt on the 17th and the impulse of the aneurysm was much less. A further addition, some beef-tea, was made to the diet on the 27th. On Dec. 16th there was no tension in the right radial pulse and the left was still absent. The potassium iodide was omitted and a mixture containing perchloride of iron, hydrochloric acid and tincture of calumba was substituted for it. The diet was now increased by the addition of bacon, fish, eggs and chops. From this date the condition of the aneurysm continued to be in every way satisfactory, but the patient gradually grew weaker and he eventually died on Jan. 18th, 1891. At the post-mortem examination made by Mr. Francis Croucher a tumour larger than a man's fist was found below the clavicle and behind the three first ribs and upper part of the sternum. The heart's substance was pale; no valvular lesion; much atheromatous degeneration in the aorta. Just above the aortic valves there was an aneurysmal dilatation about the size of a hen's egg, and at the juncture of the ascending and transverse portions of the aorta a tumour commenced which involved the whole of the transverse and the first part of the descending portions of the arch. It was a large sacculated aneurysm containing a firm coagulum which almost entirely filled the sac. The inner surfaces of the manubrium, clavicle and first and second ribs were eroded. In the upper lobe of the left lung and just behind the aneurysm a large abscess cavity was found which contained fetid pus. There was no cavity in the right lung, but it was tuberculous in the upper lobe. The spleen was much enlarged and it also contained an abscess cavity full of blood-stained pus.

Remarks.—In this case phthisis was the cause of death. That disease was not diagnosed during life. The patient had very little expectoration, his cough was of the brassy character indicative of pressure on the trachea, and it became much less troublesome as the aneurysm reduced in size. The dulness of the upper lobe of the left lung was attributed to the presence of the aneurysmal sac, by which and its loud bruit the physical signs of the cavity that existed were completely masked. It is remarkable that so large an aneurysm, thus situated, gave rise to so few pressure signs.

CASE 2.—A man, aged forty-two, was admitted to the Seamen's Hospital on March 21st, 1892, and discharged on Oct. 21st following. He stated that for twelve months he had suffered from pain in the right side of his chest and under the right scapula. He had a dry metallic cough and was subject to severe attacks of dyspnœa. There were no abnormal signs over the lungs; the heart's apex-beat was in the sixth space in the nipple line; the impulse was heaving; the first sound was booming and there was no murmur. In the second and third intercostal spaces close to the right border of the sternum a pulsating prominence was seen and felt, over which a harsh and loud systolic bruit was audible and the diastolic shock was plainly perceptible. With the exception of his dry, harsh cough, pain and pulsation, there were no pressure signs. The treatment was essentially the same as in Case 1 and need be only briefly recapitulated. On March 27th the amount of fluid was reduced to a pint, strict rest in bed was enjoined and potassium iodide in ten-grain doses given thrice daily. On the 31st the dose of the iodide was increased to twelve grains and a half. On April 22nd the pulse was considerably reduced both in volume and tension; there was but little pain and the pulsation over the aneurysm was much less. The dose of the iodide was now increased to fifteen grains and the amount of fluid reduced to eight ounces daily. On June 10th the dose of the iodide was increased to twenty grains. On the 17th the pulsation of the tumour was very feeble, the area of dulness was decreased, the murmur, though still audible, was much diminished in intensity; the diastolic shock had disappeared and the patient was free from pain; he had lost some flesh and the pulse was of low tension. On July 6th he was allowed to get up for an hour. On the 19th the restriction of fluid and the iodide were abandoned and a more liberal diet was allowed. The patient remained in hospital as a convalescent until Oct. 21st, when he left at his own request. He was then practically well and said he felt quite well. The pulsation, though greatly diminished, was still perceptible and a soft bruit was audible. These were the only symptoms that remained. Since the patient left the hospital he has at intervals of about a fortnight presented himself for examination; he was last seen on Dec. 23rd, 1892, when he was in good health and complained only "of a little increase in the beating if he did too much." The pulsation and the bruit which at first became rather more pronounced after he left the hospital have not since increased. He has twice called to be seen and inspected during the last month.

Remarks.—In both of these cases the administration of potassium iodide was combined with Mr. Tufnell's method, for the reasons that, in the first, there was a clear history of constitutional syphilis and in both cases the aneurysms were situated so near to the heart that it was unwise to omit the use of a drug credited with the effect of slowing the blood current. Dr. Douglas Powell in his admirable paper on Aneurysm of the Aorta, published in vol. xiii. of

the Medical Society's Transactions, asks, "Should the iodide of potassium be used in association with Tufnell's treatment?" In the debate which followed the iodide was by the majority of speakers regarded as an adjunct of great value. Dr. Broadbent expressed the opinion that it strikingly promotes coagulation within the sac. As to the question of the diagnosis in these cases: in the first it was unfortunately verified post mortem and the specimen showing the large coagulum is now in the museum of the Seamen's Hospital. In the second case the combination of pulsating tumour, loud systolic bruit and diastolic shock left no room for doubt. The situations of the aneurysms were most unfavourable and they consequently afford ground for encouragement even in the gravest cases.

ON AUSCULTATORY PERCUSSION OF THE SKULL,

AND THE STATE OF THE SCALP IN CHRONIC HYDROCEPHALUS AND OTHER MORBID INTRACRANIAL CONDITIONS.

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VIBRATIONS are readily conducted from one part of the skull to another; thus, on listening with the stethoscope on the side of the head over the upper part of the coronal suture while the soft tips of the fingers tap smartly the opposite side of the cranial summit, the sound of the taps is heard very distinctly. However, the note in the young and in mature life differs considerably. With a view to determine the effect of age in modifying the sound I lately examined fifty individuals, thirty of whom were children under twelve and twenty adults. In the child the sound is more hollow and the resonance greater than in the adult, and this is even more striking in the infant. The conduction of the vibrations is most free across the summit of the head about its middle. It is less obvious if, while listening on one side, percussion is made on or around either the opposite parietal or frontal eminence, especially the latter. When the skull undergoes change through disease the normal sound, both in adults and children, is altered. Definite observation on the alteration of note appears hitherto to have been made only in connection with chronic hydrocephalus. My attention was first called to it about three years ago by Professor Macewen of Glasgow, in a case of this disease, and he also pointed out its presence in two or three similar cases in the Sick Children's Hospital soon afterwards. Since then, with the exception of one or two casual observations, there seems to have been little further study of the subject. Two patients suffering from hydrocephalus having recently come under my care in the infirmary, I have taken advantage of the opportunity to investigate the nature and probable causation of the sound in question. The condition of the scalp was also carefully observed, and I think presents points of practical importance. These cases will now be briefly recorded.[1]

CASE 1.—A domestic servant, aged fifteen years and a half, was admitted into the infirmary on Oct. 13th, 1892. Her parents stated that she was considered clever when at school and that she was in good health till May, 1890. She was then sent to learn dressmaking, but at the end of a year her employer complained of her slowness and general incapacity. Shortly afterwards, following on a sudden attack of sickness and vomiting, the power of the right leg was found to be impaired, and ever since, though able to walk, there has been weakness of that extremity with a degree of stiffness of gait. On several occasions she has wetted her clothes during the day as well as at night. She has not yet menstruated. In other respects both personal and family history are satisfactory.

On admission there was obvious simplicity and childishness in her manner and bearing, though replies to simple questions were correct. The head was distinctly larger than usual at the girl's age and also very flat on the top. This increase in size had likewise been noticed by her relatives. The scalp, particularly over its middle, was soft and relaxed to the touch, and was also generally more movable than usual. Auscultatory percussion of the head at the points mentioned and in the way described revealed undue resonance, and the note partook somewhat, though not markedly, of the cracked-pot character. There was no tenderness on percussion of the skull with the finger at any part. The functions of the cranial nerves were normal. The grasp of both hands was weak, but the dynamometer showed no difference between them. Muscular sense was impaired. Sensation was good. Reflexes at the elbow and wrist were a little exaggerated. The knee reflexes were also increased and there was slight ankle clonus.

Since admission she has not improved. She has not complained much of headache, but has had giddiness and sudden vomiting once or twice a week. There are indications of a slight and receding neuro-retinitis in the fundus of both eyes. Since the application of two fly blisters over the head the relaxation of the scalp has become less obvious, but it is still present. The measurements of the head on Nov. 12th were: From root of nose to occipital protuberance, 13½ in.; across, from ear to ear, 12¼ in.; circumference at one inch above ears, 23 in. Unfortunately the head was not measured on admission. The diagnosis was: Small tumour, probably pressing on the straight sinus and so causing serous effusion into the lateral ventricles.

CASE 2.—A boy, aged four years, admitted July 30th, 1892. This child is stated to have been healthy till it was two years old. Then he had abdominal troubles, from which, however, he recovered. His head had been enlarging unduly during this last year and he had complained much of headache at intervals. In June he had an unconscious attack, followed by general rigidity of arms and legs, which continued for about one and a half hours. For many months he has been unable to walk, and during the same time he has had no power over the bladder and rectum. The little patient has the characteristic aspect of hydrocephalus. The head is very heavy and flat on the top. The anterior fontanelle is prominent and distinct fluctuation is to be felt in it and along the lines of the adjoining sutures. The scalp is very thin and stretched and fits very close to the skull. Auscultatory percussion brings out a hollow, drum-like note, with less approach to the cracked-pot character than in the other patient. The measurements of the head taken on Aug. 3rd were:—Antero-posterior, 13¼ in.; from ear to ear, 13⅝ in.; circumference, 21¼ in. On Nov. 12th, in the same order, they were respectively, 14, 14, 21½.

With respect to the softening and relaxation of the scalp in Case 1 the condition seems analogous to that of the vulva, vagina and os uteri at the beginning of parturition, though less marked than in them. It is to be observed that the changes in these parts are not to be regarded as wholly due to mere mechanical distension, but are to be attributed largely to the provision of nature which prepares them for the process of stretching at a later stage. So, too, it may be with hydrocephalus. At the commencement of the distension resulting from a comparatively small effusion, and probably also till the amount be considerable, the scalp may be in this state of relaxation, but later, especially when the fontanelles are open and the bones are separating at the sutures, it will become thin and stretched, corresponding with the state of the os uteri as labour advances. Respecting the mode of production of the altered note heard by the method of auscultatory percussion in such cases, it is probably due to the thinning and stretching of the skull and membrane covering the fontanelle in children, where the latter is still open. On the other hand, in cases such as that of the girl, where the note partakes of the cracked-pot character, the commencing separation of the bones at the sutures and consequent impaired continuity of the skull will contribute to the effect. These conditions exist in hydrocephalus; but atrophy of the cranial bones, however induced, will probably be attended by a degree of the same note, just as it is present in the thin skull of the healthy child.

Auscultatory percussion may prove of use in other conditions which probably modify the conduction of vibrations along the bones—for example, superficial hæmorrhages and new formations in the bone, membranes and cortex. These, if considerable, may be likely to interfere with the transmission of vibrations. But a *diminution* in the normal note produced by tapping the skull would also be valuable as a physical sign if it proved to be indicative of certain morbid changes at the part under examination. Thus a subdural effusion of blood, consequent on injury or apoplectic seizure, may modify the note by its pressure on the overlying bone, and if so, the alteration of sound would be a guide to the point at which the operation of trephining the skull should be performed for the purpose of removing the effused blood.

[1] The patients were shown and these points demonstrated at a meeting of the Glasgow Clinical and Pathological Society on Nov. 14th, 1892.

ERYTHEMA OF THE FACE OF BUTTERFLY DISTRIBUTION.

BY THEODORE FISHER, M.D. LOND.,
REGISTRAR ROYAL HOSPITAL FOR CHILDREN AND WOMEN; CLINICAL ASSISTANT HOSPITAL FOR DISEASES OF SKIN, BLACKFRIARS.

THE following are brief notes of four cases of erythema of the face seen at St. Saviour's Union Infirmary, East Dulwich-grove. The erythema in every case spread symmetrically over the nose and both cheeks, generally, however, being rather more extensive on one side than the other. All the patients were suffering from some affection of the stomach or intestines, and extremely ill at the time of appearance of the rash. One was a feeble old woman suffering from diarrhœa and vomiting. Two were the subjects of acute phthisis complicated by diarrhœa, and a fourth, a case of hematemesis from cirrhosis of the liver.

CASE 1.—A woman aged seventy-seven was admitted to the infirmary on March 31st, 1891, with irregular heart, no bruits, no albumen in urine. On April 15th she had severe epistaxis from which she never thoroughly recovered. For the next six weeks she had attacks of vomiting and diarrhœa, alternating with constipation. On May 30th, after two or three days of vomiting and diarrhœa, an erythema appeared on the face with rise of temperature to 102° F. The erythema had the distribution of lupus erythematosus, affecting the nose and both cheeks, but descending slightly lower on the left than on the right. The affected skin was slightly swollen, of pinkish red colour with well-defined edge. The eyelids were reddened and somewhat œdematous. The temperature

rose to 104° on the second day, after which it remained between 100° and 102° until death occurred on the fifth day. The reddened area had then spread downwards on to the neck on either side, uniting under the chin, leaving that as a white island. It had also spread halfway up the forehead. Slight desquamation was commencing on the right side of the nose. The diarrhœa and vomiting had ceased when the rash appeared and the bowels were constipated during the last five days.

CASE 2.—A woman aged thirty was admitted on Feb. 3rd, 1892, with signs of extensive recent phthisis following old disease at the left apex. She suffered from diarrhœa and had five or six small deep ulcers on the upper surface of the tongue. On Feb. 14th, the day of death, there was swelling and redness of the nose and both cheeks. The reddened area had a well defined edge, was slightly tender, but there was no complaint of itching or pain. The nurse said that it had commenced four hours previously.

CASE 3.—A man aged thirty-five was admitted on Jan. 29th, 1891, with signs of extensive phthisis and a history of only a few weeks' illness. He had severe diarrhœa. On Feb. 16th he had symmetrical redness and swelling of nose and both cheeks with well-defined edge. The redness continued until death on the following day, but had not spread beyond the cheeks. He was conscious to the last, but made no complaint of his face, his attention being directed to his cough.

CASE 4.—A man aged fifty-three was admitted to the infirmary on June 3rd, 1891, suffering from jaundice with ascites, due to cirrhosis of the liver. On July 6th he had severe hæmatemesis, vomiting about two pints of blood. The hæmorrhage nearly proved fatal. On the following day an erythema of precisely the same character as that seen in the other three cases appeared on the nose and cheeks. The temperature was 100·2°. This disappeared in four or five days, as the patient slowly recovered from the loss of blood.

In one of the above cases the swelling is described as slight—that is to say that it was slight compared with the swelling usually seen in erysipelas of the face; in all, however, it was sufficient to cause considerable disfigurement. Its distribution associates it with one variety of Gutta Rosea, of which I suppose it may be considered a very acute form. It is possible that the first case may have been erysipelas, but at its commencement it closely resembled the other three, in which there could be no suspicion of that disease. In that case and in the other two that ended fatally the erythema may have been merely a symptom of failure of some part of the vaso-motor system, the prelude to general circulatory failure. In the fourth case the patient was almost moribund from severe hæmorrhage at the time of the appearance of the rash and it disappeared as he recovered. The high temperature noticed in the old woman, which was uncomplicated by the pyrexia of acute disease, may be considered to militate against this view; but not unfrequently, especially in cases of diarrhœa, the temperature rises as the final collapse approaches. This has invariably been the case in my small experience of children, in one instance the temperature reaching as high as 108° F. before death.

Greenwich, S.E.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

A CASE OF RUPTURE OF THE LIGAMENTUM PATELLÆ; WITH TREATMENT.

BY CLEMENTS HAILES, M.D., C.M. EDIN.,
ASSISTANT SURGEON TO THE BRISTOL EYE HOSPITAL.

THE comparative rarity of rupture of the ligamentum patellæ makes the record of any such case of considerable interest, especially when the treatment adopted has resulted in a perfectly satisfactory recovery of the injured parts, as in the following case.

H. B——, whilst leaving his hotel missed a step, and fell heavily; his knee giving way he found he was unable to rise. In this condition he was found, and a medical man was sent for, who had his leg temporarily fixed on a splint and ordered his removal to bed. On the following day I was telegraphed for, and saw him with Mr. Alford of Weston-super-Mare, the gentleman who had attended him. The following conditions were found. The patella on the injured side was drawn upwards on the thigh three-quarters of an inch and a deep depression was left at the usual site of the ligamentum patellæ. The distance between the lower border of the patella and the upper border of the tuberosity of the tibia on the injured side was one inch and three-quarters, whilst on the sound side measurement gave one inch. As the chief point in treatment was to counteract the pulling upwards of the patella by the extensor cruris muscles I had a splint made after Manning's pattern, a description of which with the woodcut is given in "Erichsen's Science and Art of Surgery." It consists of a back splint hollowed to fit the shape of the back of the leg and reaching from the gluteal fold to the sole of the foot, with a footpiece attached at a right angle. Where the heel comes it is deeply hollowed, and about nine inches above is an obliquely-punched slit across the splint about two inches and a half long. A bar runs through the hollow at the heel of the splint and projects on either side. The limb having been bandaged to the knee, strips of plaster cut two inches wide and long enough to overlap in front of the thigh are stitched by their centres to a strip of stout calico or webbing and applied to the thigh from above down-

wards, thus grasping the muscles so that when traction is made on the calico band the muscles with the patella are drawn downwards. This band is passed through the slit in the splint and a loop is made in it at that level, through which a bar similar to the one in the hollowed heel is passed, and then by stronger or weaker elastic bands, attached round the ends of the bars, greater or less traction on the muscles inserted into the patella can be made. The patient returned home by rail after this splint had been affixed some days and wore it for six weeks, after which the knee was put up in plaster-of-Paris for a fortnight. Passive motion and massage were then practised, the stiffness gradually wearing off, he being able in a week or two, wearing one of Dr. Fisher's flexible knee-caps, to walk about with the aid of a stick. Now at an interval of three years and a half he is able to use the leg freely, and says he has to think before he can remember which was the injured leg, the muscles having a firm point of fixation in the new tissue. The measurement between the lower border of the patella and the upper border of the tuberosity of the tibia is now one inch. The patient is subject to chronic albuminuria, but this has not affected the process of repair.

King's Parade, Clifton.

MUMMIFICATION OF A FŒTUS IN THE UTERUS.

BY JAMES OLIVER, M.D., F.R.S. EDIN.

A WOMAN aged twenty-six and married eight years has had four children but no miscarriage. The last child was born twenty-seven months ago and was suckled for two years. After this confinement the menstrual discharge reappeared when the child was fifteen months old and it recurred regularly every month until March 24th. From this date until Aug. 15th there was complete amenorrhœa. On Aug. 15th she complained of pain in the lower abdomen and simultaneously she noted the existence of a slight hæmorrhagic discharge from the vagina. The pain, which was never severe, and the hæmorrhage, which was slight, continued for seven days. Between Aug. 22nd and Sept. 21st—the date on which the patient came under my observation—nothing worthy of note had occurred. On Sept. 21st the physical signs were as follows. Nothing was revealed by abdominal examination. Vaginally the cervix, which was not soft, was directed towards the left side of the pelvis. In front of the cervix and on the right side was felt a somewhat lobulated swelling about the size of a small cocoa-nut; this swelling was the body of the uterus. As I considered the history and physical signs to be in keeping with the existence of a mummified fœtus in the uterus the patient was admitted into hospital. On Oct. 21st patient again began to complain of pain and simultaneously there was observed a free discharge of blood from the vagina. On the following day an almost round mass was expelled. The longitudinal diameter of this mass was three inches and the transverse two inches and a half. The greater part of the mass was placental it was lobulated and fibrous looking. Through a thinned portion of the mass the fœtus enclosed in its own membrane was expelled. The cavity in which the fœtus had lain was lined by another distinct membrane.

Description of the fœtus.—It is five inches long and the head is disproportionately large. The eyelids are open, but no part of the eyeball can be distinguished. No definite hairs can be made out on the scalp. The mouth is large and open and the tongue protrudes slightly. The fingers and toes are distinct, but the presence of nails is doubtful. The umbilicus is at the lower end of the middle third of the linea alba. There is no remnant of the cord. The labia majora are distinct and the clitoris is comparatively large.

It is more than probable that this patient conceived soon after March 24th, that death of the fœtus occurred on or about Aug. 15th, and that the process of mummification extended from this date until Oct. 22nd, the date on which the contents of the uterus were expelled.

Gordon-square, W.C.

TWO CASES OF STRANGULATED FEMORAL HERNIA WITH RECOVERY AFTER OPERATION.

BY CHESMAN BARKER, M.B., L.R.C.P.LOND., M.R.C.S.

THE following cases may be of interest to the readers of THE LANCET as showing the success which follows early treatment of strangulated femoral hernia by operation, even though performed by surgeons unskilled in herniotomy, and without the manifest advantages pertaining to operations performed in hospital. That a femoral hernia when strangulated is a very much more serious affair than an inguinal hernia in the same condition is well known, but the comparative mortality is perhaps not appreciated at its proper ratio by the profession generally. The statistics of St. Bartholomew's Hospital for the year 1891, collected by Messrs. Bowlby and Lockwood, show that thirty-one operations for strangulated hernia were performed in that year, and that of these six were for inguinal and twenty-five were for femoral herniæ. Of the inguinal cases none died, giving for that year a mortality of 0 per cent. Of the femoral cases eleven died, giving a mortality of 44 per cent. It is probable that this greatly increased mortality is largely due to the fact that the intestine is damaged so rapidly in femoral hernia by the unyielding margins of the ring that the delay which generally takes place in conveying a patient to a hospital is sufficient to allow the intestine to be injured beyond recovery. That femoral hernia is not more dangerous than the inguinal variety, if operated upon in time, is probable, and in support of this statement I give below two cases of femoral herniæ in which operation within two hours of recognising the condition was followed by rapid recovery. In both cases the intestine was quite uninjured, being only a little congested; and it is highly probable that if time had been wasted in sending these patients to a hospital, or if one had had to send many miles for a surgeon, the intestine would have fallen into a condition rendering the operation one of difficulty and danger instead of the easy and successful measure it proved to be.

CASE 1.—On March 31st, 1892, I was called to see Mrs. H. W——, aged thirty years, whom I found to be suffering from a strangulated right femoral hernia. The hernia had existed for several years, but she had never worn any truss. She had been in the habit of putting it back herself, but on March 28th it became painful and she was unable to reduce it. Next morning she was in considerable pain and was vomiting, and the bowels had not been moved. On the following day when I saw her she was in great pain and her tongue was dry and furred, and her expression was anxious. The hernia was tense and tender, was irreducible and had no impulse on cough. I therefore at once decided to operate, and, the patient being put under the A.C.E. mixture, a vertical incision was made over the swelling, and the sac being opened on a director showed that the contents consisted chiefly of omentum. A small incision of Gimbernat's ligament easily allowed of the reduction of the intestine; the omentum being firmly adherent along the outer side of the femoral canal was ligatured and cut off, as also the redundant portion of the sac after the neck had been sewn up with silk ligatures; the skin wound was united with silk sutures and an indiarubber drainage-tube inserted; the wound was dressed with boracic acid lint and absorbent wool, and fifteen minims of tincture of opium were ordered every four hours. On the second day after the operation her temperature rose to 99·2°, and this was its highest point during her illness; the wound healed in nearly its whole length by first intention, but a little suppuration at its lower corner delayed complete union until the end of a fortnight; the bowels were spontaneously opened at the end of nine days, and four weeks after the operation she was able to wear a truss and get about her daily work. I saw her a few weeks ago and then she was in perfect health and the hernia had not again come down.

CASE 2.—On April 26th, 1892, I was asked to see Mrs. B——, aged seventy-three years, Dr. Owen Roberts, her medical attendant, having discovered the presence of a strangulated hernia. She only noticed the lump a fortnight ago, and on the 25th was seized with pain and vomiting, the bowels being constipated. In the right groin below Poupart's ligament was a small tense swelling, in which on coughing no impulse could be detected, and feeling as though it contained much fluid. The patient was also suffering from an almost continuous cough, the result of chronic bronchitis. Dr. Roberts having put the patient under the A.C.E. mixture taxis was tried; but the hernia not showing any tendency to go back I proceeded to operate and found, as I had suspected, that the sac contained much fluid. It contained omentum firmly adherent to the sac and a small knuckle of intestine of a deep claret colour. The subsequent steps of the operation were similar to those in the preceding case, the omentum being ligatured with silk ligatures and the neck of the sac sewn up with the same. Seven days after the operation the wound had healed by

primary union, but the bronchitis gave us much alarm and threatened more than once to carry off the patient before she could be allowed to get up; otherwise she made an excellent recovery, and although not wearing a truss the hernia did not again come down during the remainder of her life, which was terminated by the bronchitis three months after the operation. Although her age was so great she was thin and wiry, and had she not been a sufferer from bronchitis would no doubt have survived for several years. From the matted and adherent state of the omentum the hernia must have existed some considerable period of time before it was noticed.

Chetwynd-road, Highgate, N.W.

THE TREATMENT OF OXYURIS VERMICULARIS.

By B. H. NICHOLSON, M.B., C.M. EDIN.,
LATE RESIDENT SURGEON, ESSEX AND COLCHESTER HOSPITAL.

THREADWORMS are one of the commonest and yet one of the most troublesome ailments we are brought into contact with in practice and unless treatment is firmly and properly carried out, relapses are certain every few months, often producing reflexly epilepsy, chorea, convulsions, insomnia and many other debilitating and distressing troubles. First, one or two remarks as to the habitat of the nematode. The ova may develop in the large intestine of the host, or after irritation and scratching of the anus the ova may be carried to the mouth of the patient, swallowed and then the embryo may be liberated from its cell wall by the action of the gastric juice and then gradually become a mature oxyuris and inhabit the cæcum and large intestine. By the time the female oxyuris reaches the sigmoid flexure and rectum the uterus is full of ova which may be born into the intestinal tract or liberated on the expulsion of the oxyuris from the anus.

Treatment.—The child should be bathed twice daily, the underclothing changed frequently, a draw sheet put below the patient at night, the nails kept short, the fingers dipped frequently in an infusion of quassia, and the anus smeared night and morning with an ointment composed of nitrate of mercury with a small quantity of extract of quassia added. The condition of the bowels should be attended to. Mercury with chalk and rhubarb and soda powder should be prescribed to secure daily evacuation. Now santonin must be given every other night for a week and if taken longer santoninism must be guarded against—viz., tenesmus, spasms, yellow vision, hæmorrhages and red-yellowish urine. Attention should be paid to the bile secretion, the great antiseptic of the intestinal tract. The endeavour should be to increase peristalsis and diminish the secretion of mucus by giving as a tonic citrate of iron and strychnine in moderate doses after food. I have lately been using with great benefit extract of quassia made into a suppository with cacao butter (one to three grains); these suppositories are easily introduced at night and children do not object to them. Injections are disliked by children and it is difficult to get the mother or nurses to take the necessary trouble. An injection of menthol (one grain) dissolved in one ounce of olive oil is often useful. The child should have abundance of out-door exercise and a free diet, avoiding uncooked vegetables, fruit, sweets &c. and anything likely to produce catarrh or increase the mucus. The patient should be isolated during the period the oxyurides are being expelled, kept from school, should sleep alone and not be allowed to mingle with other children. This treatment should be maintained until all signs of oxyurides are obliterated.

Colchester.

SPORTS IN AID OF THE LONDON HOSPITALS.—A meeting was held on Dec. 30th, at the offices of the Hospital Saturday Fund in Farringdon-road, in furtherance of the proposed athletic and cycling sports in aid of the hospitals of the metropolis. The chief business was the election of a council, from which a practicable committee will be chosen to carry out the idea.

FATAL FOOTBALL CASUALTY.—On the 3rd inst. an inquest was held at Durham on the body of a football player who suffered fatal injuries in a match played in October last. It appeared that the injury was sustained by the deceased coming into violent collision with another player, causing fracture of the spine.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, ib. iv. Proœmium.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, WATERLOO BRIDGE ROAD.

CONGENITAL CYSTIC HYGROMA OF NECK TREATED BY DISSECTION AND IODINE.

(Under the care of Mr. MARMADUKE SHEILD.)

THIS case is a very typical one of those congenital cervical cysts to which the names "cystic hygroma" and "hydrocele of neck" have been applied. The affection has been fully described in this country among others by Mr. T. Smith, Mr. Birkett and Mr. Holmes. This case forcibly illustrates, what was especially pointed out by Mr. Holmes, that, however superficial they may appear, the major part of these cystic growths invariably extends beneath the deep fascia, the superficial cysts being merely hernial protrusions which have likely enough found their way through the deep fascia by pressure. The free extension of this cyst by large loculi beneath the deep fascia, reaching towards the base of the skull and hyoid bone, is worthy of attention in relation to the theory propounded by Mr. Sutton, that these cysts may be representative of the laryngeal saccules of certain monkeys. The amount of soft, vascular, intra-cystic growth in this case was remarkable, and when fungation occurred from inflammation caused by the iodine it was indeed difficult to believe that the growth was not of a malignant nature. As is well known, all kinds of treatment have been employed to effect the cure of these cysts. All treatment is risky, for young children ill bear extensive operations and prolonged suppuration. Probably it would be well in the majority to postpone any operative interference until the child has attained the age of puberty; but inflammation of the cysts may compel us to interfere, and so may the importunities of relatives. If the surgeon be well assured that even in the most simple-looking cases he has really a difficult task before him, removal of these growths by dissection is probably the most satisfactory treatment. The superficial cysts can thus be safely removed and the deeper loculi obliterated by drainage and the subsequent inflammatory process. The masses of solid growth, unless easily removed, had better be left intact. They are often very vascular and so incorporated with adjacent structures that safe removal may be out of the question. The perilous illness through which a young patient operated upon for congenital cervical cyst may have to pass is illustrated by the present case. Indeed, had it not been for the care bestowed upon the case by the house surgeon, Mr. Richards, and the employment of excellent nursing, a different result might have occurred. In conclusion, it may be borne in mind that quite a significant number of these cases undergo spontaneous cure by inflammation, suppuration and subsequent shrinkage. This is especially likely to occur when the cyst is of enormous size and liable to injury. Hæmorrhage has also taken place into the cyst cavities with subsequent shrinkage, and the possible communication or close connexion of the cysts with large veins in the neck must not be lost sight of in performing the operation of removal by dissection. For the notes of the case we are indebted to Dr. Theodore Fisher, registrar to the hospital.

F. B——, aged one year and seven months, was admitted on Sept. 12th, 1892. History: A swelling in the hinder part of the neck; present at birth, but is said to have been much smaller at that time. Has twice been tapped by Dr. Daniel of Epsom, who sent the case to Mr. Sheild, the last tapping having been six weeks ago. Clear fluid was drawn off. The swelling has increased considerably in the last six months.

On admission to hospital the child was fairly well-nourished, but pale and delicate looking and of stunted

growth; rickety, well-marked large Parrot's nodes, slight beading of ribs and enlargement of wrists. There was an ovoid, strikingly translucent, soft, cystic swelling, the size of a hen's egg, situated in the right posterior cervical triangle. It just overlapped the mastoid process above and extended downwards to the clavicle. Within the cyst was a hard, slightly nodular mass the size of a marble, apparently attached to the sterno-mastoid muscle. The skin over the swelling was smooth and natural in colour, and could easily be separated from the wall of the cyst.

On Sept. 14th, the A.C.E. mixture having been administered, Mr. Sheild made an incision over the swelling about three inches long, parallel to the posterior border of the sterno-mastoid. The skin was dissected off the very thin cyst wall as far as the surface of the muscles on both sides. The cyst was at this stage unavoidably opened and found to pass by a narrow opening through the deep fascia, under the sterno-mastoid, upwards towards the hyoid bone, downwards towards the sternum. There were several smaller cysts and some solid growth, and all these deeper parts were intimately connected with the carotid sheath. On opening the cyst three or four ounces of clear lymphoid fluid escaped, which feebly coagulated. The portion of cyst wall from which the skin had been dissected off was removed and several of the smaller cysts opened; the large prolongation beneath the sterno-mastoid was washed out with equal parts of tincture of iodine and water. Finally the skin was sewn

to the edges of the cyst and the large cavity was plugged with iodoform gauze.

Sept. 20th.—Temperature rose to 103° last night; till then there has been little rise since the operation; the highest has been 100·6°. The child's cheeks are flushed. Pulse 144, occasionally drops a beat. The wound is filling up well with granulations.

Oct. 17th.—Temperature remained between 100° and 103·8° until Oct. 2nd, when it fell to normal. From then till yesterday the child seemed to be steadily improving, when the temperature suddenly rose to 104·8°. To-day a director was passed into the wound in several directions, but no pent up pus was discovered. The cavity has granulated up well, but a fungating mass the size of a russet apple remains, presenting much the appearance of sarcoma.

19th.—For some time a small cyst has been noticed between the anterior border of the sterno-mastoid and the angle of the jaw, and during the last two or three days another smaller one lower down and rather more superficial has been observed. A.C.E. mixture was given. A small skin incision was made and the cyst opened by pushing in a steel director. About a teaspoonful of clear fluid was evacuated. The temperature remains between 100° and 103°.

24th.—There is some œdema and a slight redness over the cyst area and there are a few dilated veins running upwards from the upper part of the right side of the chest over the clavicle. Several small incisions were made by the house surgeon and warm boracic-acid dressings applied.

25th.—There are some signs of broncho-pneumonia at the right base. The temperature oscillates between 102° and 103°; respirations 42; pulse 160. The child is evidently very ill, but takes nourishment well.

Nov. 6th.—The temperature down to normal to-day; the signs of broncho-pneumonia have disappeared. The redness and œdema round the wound have also disappeared. There are still some distended veins running up over the clavicle.

18th.—The temperature has remained normal since the last note. The wound is quite healed. There is a thin linear scar about one inch long by a quarter of an inch, parallel with and just behind the middle of the posterior border of the sterno-mastoid muscle, to which it is attached by a mass of indurated tissue about the size of a hazel nut. The skin around the scar is puckered into numerous folds. In front, between the angle of the jaw and the sterno-mastoid muscle, a small soft cyst can be felt about the size of a haricot bean. The enlarged superficial veins running up over the clavicle have diminished in size. A complete cure seems established of the main bulk of the tumour, but the child is pale and puny and is seriously pulled down by its severe illness.

EVELINA HOSPITAL FOR SICK CHILDREN.

CASES OF FACIAL PARALYSIS OF RHEUMATIC ORIGIN IN CHILDREN; IMPLICATION OF THE SOFT PALATE.

(Under the care of Dr. GEORGE CARPENTER.)

FACIAL PARALYSIS in infants and children is common enough if those cases associated with middle-ear disease and otorrhœa with caries of the petrous portion of the temporal bone be taken into consideration. Much less frequently abscess or enlarged glands behind the angle of the jaw or parotid implication will cause this condition. Congenital syphilis (very rarely), traumatism from delivery with forceps, disparity of fœtal and maternal parts, and prolonged, though normal labour, may form causal agents. There is also a functional form, one secondary to post-pharyngeal abscess (Bokai) and an incurable congenital form (Henoch) that have been reported. Paralysis such as is met with in adults from exposure and due to neuritis of the nerve in the Fallopian canal is thought by many observers to be rare in childhood. Goodhart has seen it only once in a girl of about eight years, but Steiner and Henoch, as also Angel Money, mention cases of this nature. Gowers, on the contrary, considers the affection rare under ten and remarks "only two cases occurred in this period, and each was in the second year of life."

The following account of cases under the care of Dr. George Carpenter may therefore prove of interest; they are brought forward not only on this account, but because one of them had the soft palate markedly affected. This happened to Case 2 in the list.

CASE 1.—A child aged five years was brought to the hospital on Sept. 17th, 1891, for weakness of the eye and deafness. She had right-sided facial paralysis. This came on quite suddenly and persisted for two months and a half. There was no discharge from the ear and there never had been. The short process in the right ear appeared prominent; there were no signs of an antecedent or present perforation. The left ear contained wax normally. The child said she could hear better with the right ear. This was probably due to paralysis of the stapedius and over-action of the tensor tympani.

CASE 2.—A girl aged nine years and a half had suffered from facial paralysis of the right side for eight months. She had been absent for three months since May 15th, 1890, with scarlet fever, at the New-cross Fever Hospital, but on her discharge returned under Dr. George Carpenter's care. She was last seen on Aug. 21st, 1890. Her state was as follows:—She could not frown on the affected side or close the right eye and the lower muscles on the same side of the face were quite paralysed. The tongue was straightly protruded. The mother stated she used to drag the right leg and did so a little when brought to the hospital and was weak in the right arm. Soft palate: At rest the uvula was nearer the left tonsil and moved towards the left on phonation. The movement was nearly all on the left side of the soft palate. The left tonsil was

enlarged; this was interesting because both tonsils were partially removed before her attack of scarlet fever. She spoke with a nasal intonation and liquid returned through the nose. There were no other palsies. The grasps were equal; reflexes normal; walking normal; no history of congenital syphilis, nor could the paralysis be accounted for in any way. The lesion must have been above the geniculate ganglion to cause the implication of the soft palate. There was nothing in the case to suggest syphilitic or new growth implication of the nerve or neighbouring nerves and it is probable that the neuritis extended up to the point mentioned. But such a bold statement is not by any means sufficient. Gowers[1] says: "My own observations have led me to entertain considerable doubt as to the occurrence of paralysis of the palate from disease limited to the facial nerve in any part of its course." Only once in 100 cases had he found paralysis of the palate and this was on the side opposite to the palsy of the face. "The best established fact regarding paralysis of the palate is that it is produced by disease at the side of the medulla, damaging the hypoglossal and spinal accessory." Gowers is of opinion that it is very doubtful whether the petrosal branches of the facial nerve supply the palate and considers the spinal accessory responsible. Hughlings Jackson[2] also says that he has never seen paralysis of the palate due to disease of the facial nerve. Other writers, however, are of opinion that paralysis of the palate does occur in cases of facial paralysis sometimes. Any suggestion that might be made as to this being another instance of anatomical or physiological eccentricity of the palate can be met with the fact that fluids returned through the nose, showing unmistakably that there was paralysis. It was on the same side as the lesion and not on the opposite, as in Gowers' case. At no time was it possible to detect evidences of disease in other or neighbouring portions of the nervous system, and with the exception of the facial paralysis the child, as far as could be discovered, was perfectly well. She was seen by Dr. Syers of the Great Northern Hospital and he quite concurred with the diagnosis which had been made. Until something occurs to negative this supposition the original diagnosis must hold good. Her name and the date when she was last seen have been given, so that should she have passed under the care of any other physician a sequel may be added. The child has left the address given and no further tidings of her can be obtained.

CASE 3.—A child aged seven years attended on April 13th, 1891. She had suffered from pain in the head and right ear for years. Her mouth was drawn to one side for a week. There was a neurotic history in the family in the shape of chorea, convulsions and epilepsy, and a great-aunt was in an asylum till she died. Three weeks back the child had an unusually severe "screaming fit" at night. She woke up screaming at midnight, did not know her mother and would not speak to her. She soon fell asleep, however. The next morning the girl was "puffy about the eyes." A week ago she complained of pain in the head and right ear and she was noticed to be deaf on the right side; the face was drawn to the left side. The child was thin-faced and pale; the right side of the face was expressionless, the right eye watery and the mouth drawn over towards the left side. When she frowned the left eyebrow alone moved. The right eye could not be closed; tongue protruded naturally; soft palate normal. Right ear: Tympanic membrane (?) marked by desquamating scales. She could not hear a watch held half an inch from the right ear. When the watch touched the mastoid process she could hear it. She had a discharge from the ear when quite young; nothing seen for two years.—April 20th: Much about the same.—June 22nd: Face is much better.

CASE 4.—A boy aged two years and five months attended as Dr. George Carpenter's out-patient on Dec. 17th, 1891. On getting up a week prior to this he fell and could not stand up. He was quite well the night before; not subject to fits. There was never a discharge from the ears; no history of exposure to draught or cold. The following day something wrong was noticed with his face. The patellar reflexes were brisk. The arms were used equally and well. When the child laughed or cried the left angle of the mouth and the left orbicularis palpebrarum did not move. The eyeball did not roll up when an attempt was made to close the eye. The soft palate moved equally. The ears were full of wax, but otherwise normal. In three weeks' time under galvanism he was almost well.

[1] Diseases of the Brain, p. 218.
[2] THE LANCET, April 2nd, 1887.

SEAMEN'S HOSPITAL, GREENWICH.

ABSCESS OF LIVER WHICH RESULTED IN DEATH FROM SEPTICÆMIA.

(Under the care of Dr. CURNOW.)

THIS case was an interesting one in many particulars, for (1) the rigors were so regular day by day that malarial fever was diagnosed and the plasmodium sought for until the failure of quinine and other anti-malarial remedies led to a change in the diagnosis, for although septicæmia frequently simulates the rigors of an ague, yet this case shows this coincidence most strikingly; (2) the paroxysms of fever occurred daily for over fifty days, and on one occasion a temperature of 108° was noted; (3) the abscess could not have been reached, even if its situation had been diagnosed; (4) the age of the abscess as shown by the thickness of its capsule and its fibrous character, but yet causing death by pyæmia, with secondary abscesses in both lungs as well as in the liver; and (5) the absence of any dysenteric mischief in the intestine. For the notes of this case we are indebted to Dr. Spencer, house physician.

The patient, a German, aged thirty-nine, was admitted into the Seamen's Hospital, Greenwich, on Oct. 5th, complaining of daily shivering fits followed by sweating and fever. He had been a sailor for the greater part of his life, but had not lately visited any malarial countries. Eight years ago he was at Panama, but had no fever there and had never suffered from dysentery. Three months before admission, when at Boston, U.S., he was attacked with pain in the right side, which he attributed to a strain caused by lifting a heavy weight. He was laid up in hospital for five days, after which he recovered and seems to have kept in his usual health until two days after reaching England (Sept. 30th), when he began to suffer with severe shivering fits every day, followed by fever and sweating and accompanied by severe headache. In the intervals between these attacks he expressed himself as feeling fairly well.

On admission (Oct. 5th) the patient was a well-nourished man with a sallow complexion; there were no abnormal physical signs over the lungs or heart; the splenic dulness was enlarged and the edge of the spleen was just palpable; the liver could be felt about two inches below the costal margin in the nipple line and was a little tender on palpation; the tongue was much furred; the urine was free from albumen or bile pigment. Every day he was attacked with a violent rigor, with a rise of temperature to 103° or 104°, followed by profuse sweating. The attacks came on generally in the evening and lasted from twenty minutes to a couple of hours. During these rigors he was in much distress, with rapid pulse and respiration, vomited and complained of pains about the body. He was fairly comfortable, however, in the intervals. Examination of the blood showed nothing abnormal, except some increase in the number of white corpuscles. He was treated first of all with quinine, to which in a few days arsenic was added. By Oct. 21st the quinine was increased to fifteen grains every six hours. This treatment had no effect on the course of the disease. The rigors continued. The temperature rose higher than ever during the attacks, reaching on one occasion 108°. A few days were passed without a rigor, but occasionally two would occur on the same day; they occurred more frequently in the evening than at other times, but there was no marked periodicity in the times of their occurrence. By Oct. 29th he had lost some flesh and had developed a cachectic appearance with sallow, earthy complexion; tincture of eucalyptus was ordered in three-grain doses and steadily increased without any influence on the disease.

After continuing much in the same condition for about three weeks he became markedly worse, pleuritic friction developed over the lungs in the infra-axillary regions and in front of the chest on either side and coarse râles were heard over the lower part of both lungs, especially on the right side, with some impairment of resonance. Some intermittent pain was complained of in the right shoulder and arm.

On Nov. 25th Warburg's tincture was ordered. The temperature now became less oscillating, although still very irregular. The respiration became continuously hurried and the strength failed rapidly. There was towards the close some cough, with thick muco-purulent sputum in small quantity. Death occurred somewhat suddenly on the morning of the 28th.

Necropsy, Nov. 29th.—The liver was considerably en-

larged. In the posterior part of the right lobe, beneath the diaphragm, to which the organ was densely adherent, was an old abscess about as large as an orange. This abscess was surrounded by a dense whitish capsule and contained very thick, curdy pus; at its upper part was a small perforation through the diaphragm communicating with the right lung. In the neighbourhood and internal to it the liver substance was breaking down, riddled with numerous small abscesses containing a thinner greenish pus. The right lung was adherent to the chest wall and bound down to the diaphragm by dense adhesions. The lower lobe was honeycombed with abscesses containing thick green pus, one of them as large as a pigeon's egg, several others rather smaller; there were also small scattered abscesses in the middle lobe and one near the apex of the upper lobe. The left lung was free from adhesions, the lower lobe contained several small abscesses near the surface and some fairly recent infarcts already breaking down in the centre, one of them about the size of a walnut. The left kidney was in a condition of hydronephrosis evidently of long standing, the upper part of the ureter being much dilated. The right kidney had undergone compensatory hypertrophy, but was healthy in structure. The bladder was small, with a hypertrophied wall. No calculi were found. The spleen was enlarged and soft, but contained no abscesses and was free from infarction. There was some clear straw-coloured fluid in the peritoneal cavity, but no signs of lymph. The intestine was perfectly healthy. The heart was natural in appearance, with the exception of slight thickening of the mitral valve.

LINCOLN COUNTY HOSPITAL.

CASE OF SWALLOWING A RAZOR; GASTROTOMY; DEATH.

(Under the care of Mr. W. J. CANT.)

IT would occupy too much of the space at our disposal to enumerate the various foreign substances which have been introduced into the stomach either by accident or by design, and we need mention only those which, from their character, consistence or shape, have necessitated removal by the operation of gastrotomy. The first recorded instance of the operation (which has been a very successful one) is that by Mathis of Brandenburg in 1602, who removed a knife nine inches in length from a man aged thirty-nine. Beckhar of Dantzic in 1636 removed a knife from a peasant, which was afterwards preserved in the library at Königsberg. Dr. A. C. Bernays removed a knife nine inches and a half long an hour after its ingestion. He refers in his paper to thirteen published accounts of the operation spread over a period of 251 years. Professor Loceta removed several needles from the stomach of a young woman. M. Pollaillon removed a steel fork which had been swallowed by a juggler. A magnetic needle suspended by a cord proved useful in establishing the diagnosis. Dr. M. E. Witte of Iowa removed a heavily plated four-pronged spoon-handled fork seven and a half inches in length from the stomach of an insane woman about three months after it had been swallowed. The prongs of the fork had penetrated through the stomach wall into the wall of the abdomen. Dr. Radestock operated on a prisoner who had attempted suicide. Twenty-three days afterwards the latter had swallowed a rubber cuff, five pieces of glass (each as broad as the finger) and ten pieces of wood (each as long as the finger and as thick as the thumb). It was necessary to open the intestine to remove some of these. After recovery from the first operation he again swallowed similar pieces of wood, which had to be removed from the intestine. Dr. M. H. Richardson operated on a lady who had swallowed on three consecutive days a gold pencil-case, a large open safety-pin, a steel crochet needle five inches in length and several common pins. The safety-pin was the only foreign body found in the stomach and had perforated its coats. One pin and the pencil-case were subsequently passed per anum; the other things were not again seen. Perier recorded the case of a man who had swallowed a teaspoon; he proved its presence in the stomach by means of an electric exploring instrument and afterwards removed it by operation. Mr. D. Lowson removed a skewer seven inches and a half in length which had penetrated through the parietes, but could not be removed without operation on account of a piece of clay pipe which was attached to it in a transverse direction. We must not omit reference to the performance of this operation for the removal of masses of hair-forming tumours occupying the interior of the stomach; they hardly come under the same category as the cases above enumerated, the formation of the masses being slow and their diagnosis difficult; the results obtained by Knowsley Thornton, Schönbarn and John Berg in the three recorded cases were brilliant. In a recent number of THE LANCET we referred to some instances in which gastrotomy was performed to enable foreign bodies impacted in the lower part of the œsophagus to be removed.

Mrs. S——, aged sixty-eight, was admitted into the Lincoln County Hospital on Tuesday, Dec. 13th, 1892, as she said she had "swallowed a razor" for the purpose of destroying her life. She was in a very depressed state of mind, frequently saying she was "lost" and that "there was no hope for her." She told her tale clearly and Mr. Cant felt convinced she had done as she said. The friends, however, were doubtful; they thought she must be under some delusion, especially as they had, so far as they knew, removed everything with which she could destroy herself. The razor case had, however, been found empty. Thirty years ago she had attempted suicide and had been detained for some time in an asylum. It was elicited from her friends that she was a "bleeder." She had been bleeding from the gums and mouth for five or six weeks before her admission into the hospital. On examining the pharynx a slight abrasion was found and from this blood frequently came. The tongue was cracked and sore. This continued so throughout. No symptoms or signs of the razor could at first be detected, so it was decided to watch the case, also to endeavour to determine experimentally the presence of the razor. Dr. Belcher, science master to the Science and Art Schools, Lincoln, attempted to do this by means of the compass needle, having first magnetised the razor; this gave no satisfactory result. Mr. Cant then ordered her twenty drops of dilute hydrochloric acid. After an hour the stomach was washed out, the washings collected, filtered, evaporated down and redissolved. The presence of iron in a large quantity was shown by the Prussian-blue test. At a consultation held on Saturday, Dec. 17th, it was decided to wait for further proof. On Sunday morning (the 18th) the end of the razor could be clearly felt, fixed at the pyloric end of the stomach. On Sunday night she had vomiting and slight pain. It was decided to operate on Monday, the 19th, at 12.30 P.M.

Operation.—No food was given by the mouth for eighteen hours before the operation, the patient being fed on nutrient enemata. Fifteen minutes before the operation one-sixth of a grain of morphia was administered subcutaneously and A.C.E. mixture was given by Mr. Watkins, the house surgeon, whose unremitting care together with that of the nurses deserve the highest praise. The skin of the abdomen, as also everything that would be likely to come in contact with the wound, was made aseptic. An incision four inches long was made in the middle line above the umbilicus directly down to the peritoneum. This, after complete cessation of the bleeding, was opened on a director. The left lobe of the liver came into view and on passing the finger down to the stomach Mr. Cant felt the razor lying lengthwise therein, the narrow end in the cardiac region. The finger was passed behind the stomach, which was with some difficulty brought forward into the wound, with the narrow end of the razor projecting in it. A small opening was made into the stomach so that the small end of the razor projected through it. A little of the gastric juice escaped, but none was allowed to get into the abdominal cavity. There was some bleeding from the stomach wound and it was necessary to tie a small artery. The razor, six inches and a half long, was then drawn through the wound. Hot pads of sal alembroth wool were constantly applied to prevent any chilling of the abdominal contents. The stomach wound was then stitched up with a double row of eight fine silk sutures (an ordinary sewing needle being used). This was done by Czerny's method. The stomach was then returned. The abdominal incision was sutured with silk and dressed antiseptically. The patient was then removed to a warm bed and fed with pancreatised milk enemata every four hours (an egg was added on Dec. 21st to every half-pint of milk). These she retained throughout. Nothing whatever was given by the mouth, but it was occasionally sponged out with cold water till 9.30 P.M., when she had a teaspoonful of toast-water. This was repeated occasionally, as she had great craving for drink. She remained comfortable and slept at intervals; she was pleased when she heard the razor had been removed and her mental condition improved from that time. She voided urine naturally and thirteen hours

after the operation passed flatus. The bowels were moved naturally the day after the operation. Thirty hours after the operation she vomited one ounce of dark blood, for which four grains of acetate of lead were given in water. One-sixth of a grain of morphia was given hypodermically, occasionally, when the patient was restless and for the hæmorrhage. Midday on Dec. 21st the bowels were freely moved and again on Dec. 22nd. Small quantities of blood were vomited at intervals during the day of the 22nd, for which acetate of lead was again administered. Next day (the 23rd) ten grains of gallic acid were ordered for the hæmorrhage, and this was repeated three times at intervals. At 8.30 A.M. on Dec. 23rd the bowels were again moved. At 9.30 A.M. the wound was dressed and found to be nearly healed. The bowels became rather relaxed and opium was given at intervals. A teaspoonful of Brand's essence of beef was given every hour by the mouth. There was no further vomiting and at 6 P.M. her condition seemed in every way favourable. She complained of slight pain early in the morning of Dec. 24th and was very weak and faint. She became much worse at 4 A.M., her strength failing. She gradually sank till she died at 8.45 A.M. Her temperature never rose above 99° and the pulse remained at about 92, till near the end.

Necropsy.—On examination an abscess was found in the abdominal wall from which a small amount of pus escaped externally, but there was no connexion with the abdominal cavity. On opening the abdomen the intestines and peritoneum were glistening and normal. A small amount of lymph was thrown out round the wound of the stomach. This caused slight adhesion to the under surface of the liver and the abdominal wall. There was no escape of the stomach contents. The stomach was found empty and natural and the wound closed and healing. All the other organs of the chest and abdomen were healthy except the heart, which showed extensive mitral disease. The cause of death seemed to be exhaustion due to the hæmorrhage she was suffering from previously to swallowing the razor and to the slight hæmorrhage before and after the operation, to the necessary restraint from food to a person of her advanced age, and to the heart complication.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY.

A MEETING of this Society was held on Dec. 21st, Dr. F. J. Payne, President, in the chair.

Dr. WHITELEGGE read a paper, illustrated by numerous lantern exhibitions of statistical tables, on Epidemics of Measles, Major and Minor. Measles was, he said, a disease of the bacteriology of which we knew nothing and which seemed wholly uninfluenced by the progress of sanitation. There were everywhere a summer and winter wave, the former being the higher, except in London and a few other towns. In London the maxima occurred in June and December; in New York they were later—viz., July and February. Dr. Spottiswoode Cameron had observed a high barometer, scanty rainfall and low humidity to accompany a high mortality. The minor epidemics recurred as a rule about every two years in Europe. The intervals in London Liverpool, Manchester, Nottingham, Bolton &c. had gradually fallen from three to one and a half years. In isolated communities, in which the disease died out altogether after an epidemic, there was no trace of periodicity. In the few towns in which notification had been adopted it was seen that, contrary to the inference suggested by returns of deaths alone, the disease was never entirely absent, and an analysis of the cases in the several districts or wards showed that the progress of an epidemic was rather a smouldering than an explosion. The type of the disease rarely changed during an epidemic and higher mortalities were mostly due to the state of the weather, the supervention of pneumonia or the co-existence of other specifics. The death-rate or case mortality, however, varied in different places and years from 0 to 10, 20 or even 30 per cent., though these higher mortalities were seldom if ever met with in these countries. They had been observed only under very unfavourable conditions. In all such epidemics the deaths were mainly due not to the disease itself, but to the surroundings, hardships or improper treatment, or to excessive susceptibility of population. We never, however, observed a change of type in the course of an epidemic, whether of intensification (as Dr. Thorne Thorne has shown in the case of diphtheria) or of lessening severity, as was familiar in those of scarlet fever and cholera, and as a rule the intensity of measles was inversely as the extent of the epidemic. In London the ratio of the deaths from measles to those from all causes showed the recurrence of biennial epidemics, with alternate longer series of higher and lower mortalities. The Sunderland tables were the most complete and instructive; they showed a biennial recurrence since 1876, with a remarkable rise from the winter of 1884–5, when the maximum case mortality of 29 per cent. was reached. In conclusion, Dr. Whitelegge said that the difference between major and minor epidemics consisted in the fact that the latter, whether large or small, and over wide or narrow areas, occurred every two or three years, as it were mechanically, while occasionally over wide or narrow areas successive minor epidemics, owing to a progressive intensification of the virus, became more and more virulent, till they constituted what he had called major epidemics. But the keynote of the epidemiology of measles was its stability of type, as instability was characteristic of diphtheria; and this might serve to explain the little variation in its clinical characters, its little tendency to live out of the body or in artificial culture fluids, in water, milk &c., and the want of success attending all attempts to communicate the disease to the lower animals.

The President, Mr. Murphy, Dr. S. Coupland and Dr. Willoughby took part in the discussion.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THIS Society met on Dec. 19th, 1892, Mr. Shirley Murphy, President, in the chair.

Dr. THURSFIELD read a paper on Deaths of Mothers in Childbed considered as Preventable Mortality. These deaths included two distinct classes: (1) Those from "puerperal fever" and (2) those due to accidents of childbirth, some of which were perhaps inevitable, but the greater number were owing to the want of proper obstetric attention and skill. The death-rates per 10,000 births in England and Wales for each quinquennium from 1851 to 1890 were: Total deaths, 49, 46, 48, 46, 54, 39, 49, 45; puerperal fever, 15, 15, 16, 15, 24, 17, 23, 24; accidents of childbed, 34, 30, 32, 31, 30, 22, 21, 21. For the year 1890 they were respectively 48·6, 22·3 and 26·4. The apparent increase in those from puerperal fever since 1881 was possibly due to the inquiries instituted into suspicious returns of peritonitis and pyæmia, but the fact remained that 50 per cent. of the deaths in childbirth were from this cause and therefore preventable. There was, however, in different districts a remarkable difference, not only in the total mortality, but in the relative proportion of those from the two causes—lowest in London and the home counties and highest in the thirty peopled agricultural and mining districts, with a preponderance of puerperal fever in the urban and of accidents in the rural populations, notwithstanding the prevalence in towns of rickets—a frequent cause of difficult parturition. As typical populations he took London, Manchester, the North Wales and the south-western registration districts, in which the mean death-rates per 10,000 births for the years 1881–90 were:—

England and Wales ..	47·3	25.9	21·3
London	39·1	24·4	15·3
Manchester	52·0	31·3	20·6
N. Wales Counties	67·3	32·5	34·7
S.W. Group of Counties..	48·6	20·5	23·2

The excessive mortality from accidents in the rural districts, where the total deaths are below the average, was noteworthy and explicable only by the want of skilled attendance. "Puerperal fever" was not a specific disease *sui generis*, but a collective designation of septicæmia, pyæmia, erysipelas &c., occurring during the puerperal process, the septic material being derived from external sources, from other cases or from auto-infection. It was virulent and persistent in the extreme, but the analogy of surgical septicæmia justified us in believing it to be wholly preventable, or nearly so. What he wished to emphasise was the necessity for the instruction of nurses and midwives in the antiseptic treatment of all cases and in the recognition of those which called for skilled medical assistance.

Dr. WIGHTWICK maintained that all post-mortem examinations should be made by special pathologists.

Dr. SYKES was inclined to attribute most cases occurring among the poor to the neglect of disinfection of bedding after infectious diseases, especially typhoid fever.

Dr. WILLOUGHBY, while strongly insisting on the septic origin of all puerperal fever, which he would have called by its proper name of puerperal septicæmia, agreed with Dr. Sykes as to the necessity for disinfection.

On the motion of Dr. GIBBON, seconded by Dr. WOODFORD, it was resolved that the Society should confer with the Obstetrical Society on the extension of instruction in midwifery.

Dr. GARRETT then read a paper on the "Spontaneous Pollution of Water originally Pure in Storage Reservoirs." The water-supply of Cheltenham was, he said, drawn from two sources: the river Chelt, and from openings in the oolite of the Cotteswold hills. The latter was moderately hard (12°—16°), but of extraordinary purity, yielding only 0·04 per million of albuminoid ammonia and absorbing no more oxygen than ordinary distilled water. One of the reservoirs was covered, the other two were open. Complaints having been made that the town water had a "fishy taste" suspicion fell on the Chelt as the less pure, but it was soon ascertained that the fault lay with the open reservoirs on Hewlett's Hill and that the cause was the growth of Chara, which was not found in the covered reservoir, since like all plants forming chlorophyll it needed light. Dr. Garrett exhibited specimens of the Chara. It grew luxuriantly in the early summer, but in autumn broke up to a great extent, rendering the water turbid with its disintegrated and decomposing tissues, which swarmed with organisms of every kind and emitted odours, fæcal and other. Dr. Farrow of Harvard had referred these odours to Lynglya Beggiatoa and Nostoc respectively, and Dr. Adams of Bolton ascribed the stale-fish smell to Converva Bombycina; but this last was not found at Cheltenham, where the Lynglya abounded. The Chara softened the water remarkably. Peaty waters containing vegetable matter were acid, but this was slightly alkaline. Attempts to exterminate the plant were unsuccessful, and Dr. Garrett had advised the use of the covered reservoir only, and that when it was necessary to have recourse to the others, that the water should not be allowed to remain in them any length of time.—Drs. Bostock Hill, Thresh, Willoughby and others took part in the discussion.

PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting was held on Dec. 20th, 1892, Dr. Bell, President, in the chair. Dr. S. LODGE showed a young woman aged twenty-four suffering from Chronic Œsophagitis. For four years she had suffered pain on swallowing solids. The tenderest part appeared to be on a level with the lower third of the sternum. There was an excessive appetite and pyrosis, but no other evidence of disease. She was relieved by restriction to liquids and the exhibition occasionally of a little bismuth. Dr. Lodge also brought forward a case in which a mastoid operation was performed. There had been epistaxis with signs of meningitis, including fever, slow pulse and double optic neuritis. The mastoid cells being opened the patient steadily improved and the neuritis and other signs disappeared. In another case shown with Facial Palsy Dr. Lodge had opened the mastoid, scraped out some dead bone and the paralysis disappeared.—Dr. MAJOR showed a patient probably affected by lead. The lower branches of the facial nerve were paralysed, whilst the upper were free. The paralysed palate responded readily to direct stimulation. Dr. Major also showed two patients, both suffering from early General Paralysis. There was no syphilitic history obtainable and neither had grandiose delusions. He strongly advocated surgical treatment of all cases with much headache, as improvement was to be expected.—Dr. BELL showed a case of Primary Shrinking of the Conjunctival Sac until the eye was closed in and the eyeball immovably fixed between the closed and adherent lids; he had shown a similar case to the Society sixteen years ago. A few others had been reported since, especially in connexion with pemphigus, but in neither of his cases had there been this association. A case of Primary Calcareous Degeneration of the Cornea was also shown by Dr. Bell; a few such had lately been reported. It began on the upper part of the cornea, just under the surface, which was smooth and covered by a layer of epithelium; there was neither pain nor ulceration. The area of the pupil was nearly covered. This case was unique in that absorption of the calcareous matter was progressing in the parts covered by the lids.—Dr. APPLEYARD showed Seven Elbows in which he had practised excision with varying results. In one case "reflex" paralysis had ensued with loss of the use of the deltoid and muscles passing over the elbow, except those attached to the inner condyle. There was no loss of sensation. Other cases of interest were also shown at this meeting.

MANCHESTER CLINICAL SOCIETY.—At a meeting held on Dec. 20th, 1892, Dr. T. C. Railton, M.D., M.R.C.P., occupied the chair.—Dr. MILLIGAN showed several patients suffering from the presence of Naso-pharyngeal Adenoids. A short historical sketch of the disease was given. The histological characters of adenoid tissue were discussed and microscopic specimens shown. It was pointed out that the disease should be considered as the local manifestation of a dyscrasia closely akin to scrofula and that it was responsible for at least 50 per cent. of the nasal catarrhs of childhood. The symptomatology of the affection was briefly touched upon, special mention being made of secondary affections of the ear. Great stress was laid upon the importance of early and radical surgical interference, especially in those children who at the same time suffered from recurrent attacks of deafness and earache. It was pointed out that even although the growths did show a marked tendency to atrophy during adolescence the surgeon was not justified in waiting for this atrophic change to take place, seeing that during the period of retrogression serious and irreparable changes might happen to the organ of hearing. The various methods of removing the growths were then discussed and the requisite instruments shown.—Dr. STELL related two cases of Aortic Incompetence illustrative of the prognosis of the disease. The first case was that of a man aged thirty-two who was free from syphilis or gout and had not suffered from rheumatism or chorea, but had been exposed to making great physical efforts. The patient suffered during the last few months of his life from angina pectoris and dyspnœa, but had not developed dropsy or engorged liver. He was able to continue his occupation till the day of his death, which resulted from subacute heart failure. At the necropsy the aortic valves were found thickened and shrunken and the aorta sound except in the immediate neighbourhood of the valves. The orifices of the coronary arteries were implicated and much contracted. The second case was that of a large, powerfully built young man who had had rheumatic fever when a lad. Physical examination revealed a great amount of aortic incompetence. The patient was for years under observation, suffering occasionally from the symptoms of dyspnœa, dropsy and engorged liver, but of no great severity. These symptoms were always readily removed by treatment and he resumed his work. During the last few years of life his health had improved and he remained free from dropsy and was able to do his work without interruption. Unfortunately he contracted enteric fever, of which he died. At the post-mortem examination the great reactive capacity of his heart in the presence of a grave lesion was explained by the coronary arteries not being involved in disease and by one of them being of unusually large size. A third case was mentioned. It was that of a woman who died of angina pectoris. The aorta was dilated, the valves incompetent and the orifices of the coronary arteries much contracted. Specimens from the three cases were shown.—Dr. ERNEST S. REYNOLDS showed a case of Chronic Hysteria in a female aged twenty-nine years. The attack had come on suddenly when she was fourteen years old, and she had practically remained in the same condition ever since. She showed very marked hysterical mutism and spasm of the right half of the tongue and of the left arm and leg. He also related a case of Landry's Paralysis, the patient having recently died. She was admitted to the hospital suffering from bronchitis and in a few days she lost the power of standing. The legs then became completely paralysed and also the large muscles of the arms. The toes and fingers could be moved almost to the last. On the eleventh day the respiratory muscles were attacked and she died on the twelfth day of the disease.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—On Dec. 21st, 1893, Mr. R. C. Chicken, F.R.C.S., presided at a meeting of this Society. Mr. GRAY, F.R.C.S., showed a woman aged sixty-three with an enormous Cystic Enlargement of the Left Breast, probably sarcomatous.—Dr. HEELIS

read a paper on Puerperal Fever. He said the theory that puerperal fever is always caused by direct infection by attendants and is always preventable by antiseptic precautions was not adequate to explain all cases. The genital tract cannot be kept aseptic with the same certainty as a surgical wound. Preventive treatment consisted in the strict observance of antiseptic rules, details of which were given. In addition to suitable diet and medication the following local treatment was adapted to the developed disease: (1) Syringing, (2) swabbing out the uterus with carbolic acid, (3) combined curetting and swabbing. Where the tubes or ovaries were the seat of suppuration they should be removed by operation.—Dr. FENNELL read notes of a case where the patient was exposed during the puerperal period to infection by scarlet fever in concentrated form and recovered without any febrile symptoms.—Dr. ELDER said puerperal fever had been known to be carried by attendants and nurses for the last hundred years and modern science and practice quite bore out this view. He deprecated the common practice of making the obstetric bag the receptacle for catheters and other instruments of doubtful purity. He pointed out the diminished mortality in lying-in hospitals following on careful attention to hygienic rules and the use of antiseptics.—Dr. MICHIE thought puerperal fever was often due to local inflammatory conditions, such as metritis and salpingitis, which in some cases existed before labour. In such cases laparotomy was the remedy.—Dr. HANDFORD thought autogenetic cases were due to the action of germs, the source sometimes being undiscoverable. Laparotomy might sometimes be required, but he thought a great many cases recovered in the long run when left alone.—Mr. NESBITT remarked that in his district puerperal fever was a notifiable disease.—Specimens: Dr. MICHIE showed the following, removed by operation with successful results: Two Ovarian Tumours with twisted Pedicles; a Ruptured Ovarian Cyst; Commencing Cystic Disease of Ovary; a small Paroöphoritic Cyst; a small Parovarian Cyst.

PLYMOUTH MEDICAL SOCIETY.—Mr. GEORGE JACKSON read a paper before this Society on Dec. 21st, 1892, on the Medical Defence Societies. After pointing out the dangers to which medical men were exposed by false accusations, blackmailing &c., he showed the necessity of everyone in active practice joining such a society, which would protect him and if necessary defend him in the law courts from such accusations. The following resolutions were carried—viz., (1) that in the opinion of this meeting it is very desirable that a branch of a medical defence society be formed; and (2) that a branch of the London and Counties Medical Protection Society, Limited, be formed for this district. A small committee was appointed to carry out the details and to call shortly a general meeting of the practitioners of the neighbourhood to inaugurate a branch of the London and Counties Medical Protection Society.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.

A MEETING of the Section of Pathology was held on Dec. 2nd, Dr. Frazer in the chair.

Diffuse Cerebro-spinal Sclerosis.—The PRESIDENT read a paper on a case of this affection that had occurred under his care at the Mater Misericordiæ Hospital. Most extensive lesions were found post mortem by Dr. M'Weeney, partaking of the character of disseminated sclerosis and of chronic myelitis. Dr. M'Weeney then described at length the lesions found in the part of the central nervous system that had been examined—viz., from the lower end of the cord to the upper part of the medulla, and demonstrated a large series of sections prepared mostly by Weigert's hæmatoxylin method.—Dr. FRAZER said that Dr. M'Weeney's paper was to be considered as a report of half the case only, and that the account of the remainder was to be expected at a future meeting.

Adenoma of the Kidney.—Mr. CONOLLY NORMAN read a paper on adenoma of the kidney, and exhibited a specimen of that affection. Both the kidneys were cirrhotic, the left extremely so. Mr. Norman believed that the most satisfactory explanation was that of Sabourin, who held that cirrhosis originated in the proliferated epithelium of the convoluted tubules.—The PRESIDENT asked Mr. Norman if the tumour might not arise from some of those cystic foci which are so commonly met with in cases of contracted kidney, and also what was the condition of the heart, and of the left ventricle in particular.—Mr. NORMAN, in reply, said that in one of the "granulations" of Bright he found a number of dilated tubes the epithelium of which appeared to be proliferating. The patient's heart was hypertrophied as a whole and the left ventricle in particular.

SURGICAL SECTION.

A meeting of the Surgical Section was held on Dec. 9th, Dr. E. Hamilton, President, in the chair.

Two Cases of Disease of Mastoid and Petrous Portions of Temporal Bone in connexion with Disease of the Ear.—Mr. DOYLE brought forward these two cases. In the first case chronic suppurative disease of the middle ear and the mastoid cells had eaten a circular opening through the right temporal bone; it communicated with the middle fossa of the cranium, producing softening and abrasion of the under surface of the temporo-sphenoidal lobe of the brain. The second case was operated on for caries and mastoid periostitis in September last, and is still under treatment and progressing favourably.

Cancer of the Rectum.—Dr. BALL read in abstract a communication on cancer of the rectum. Dealing with the pathology of the subject, Professor SCOTT gave a lantern display of micro-photographs, chiefly from Dr. Ball's cases, illustrating the disease. Dealing with the diagnosis Dr. BALL laid great stress on the importance of early recognition and on the fact that many cases were treated as chronic dysentery where a digital examination would have shown that cancer existed. Having discussed the limits of an excision of the disease he presented a table showing the results of excision in nine cases in his practice. Regarding colotomy, the opinion was expressed that in a large proportion of cases of cancer unsuitable for excision obstruction never became a prominent symptom, and that these cases were much better left without operation. Colotomy was, however, clearly indicated where obstruction was commencing; colotomy should be had recourse to early, before any of the secondary changes due to obstruction were marked.—The PRESIDENT endorsed the statement of Dr. Ball that in many cases diseases of the rectum are allowed to go on for a very long time without being satisfactorily diagnosed.

Dr. Thomson, Dr. Franks, Dr. Thornley Stoker, Mr. Myles, Mr. Tobin, Dr. Bennett and Dr. Brooks took part in the very interesting discussion which followed.

OBSTETRICAL SECTION.

A meeting of the Obstetrical Section was held on Nov. 25th, Dr. Horne, President, in the chair.—Mr. JOHN MCCULLAGH and Mr. MCARDLE exhibited cases of Spina Bifida; one treated by iodo-glycerine, the other cured spontaneously.—Dr. SMITH showed a specimen of Hydrops Folliculorum, a large Dermoid Cyst, a Multilocular Ovarian Tumour, a Sloughing Fibromyomatous Polypus and a Parovarian Cyst, all removed by operation and all the patients recovered.—The PRESIDENT exhibited an Ovarian Tumour, removed on account of axial rotation, with peritonitic symptoms. The patient recovered. Mr. McArdle and Dr. Smyly took part in the discussion.—Dr. FLYNN exhibited a Parovarian Cyst removed by operation; the patient recovered.—Dr. E. HASTINGS TWEEDY showed a Blighted Ovum, which escaped six hours after delivery at term.—Dr. KIDD inquired whether the fœtal placenta was connected with the placenta proper.—Dr. TWEEDY replied that he had not found any connexion.—Mr. M'ARDLE exhibited a specimen of the Labia Majora removed for perforating ulcer. There was glandular infection, and the President, Mr. Smith, Mr. Tobin, Dr. Smyly and Dr. Parsons joined in the discussion.—Mr. MCARDLE next exhibited a Renal Cyst which simulated ovarian tumour. The patient did well.—Mr. TOBIN bore witness to the great size of the tumour.—Mr. MCARDLE then gave details of a case in which Intra-uterine Arrest of Development had taken place, he contended, as a result of injury to the mother by railway accident.—Dr. McCullagh, Dr. Smith, Dr. Smyly, and Mr. Broomfield joined in the discussion. The opinion of the meeting as to the etiology of the case was divided.—Mr. M'ARDLE gave details of a case in which Intra-uterine Arrest of Development occurred as a result of injuries sustained by the mother in a railway disaster. At birth it was found that the spinal canal was incomplete, except at the middle dorsal region. The head also showed an arrest of development. The right hip-joint was also undeveloped. It seemed as if the injury to the mother had checked growth,

leaving the parts described in the condition of development arrived at before the injury.—Mr. M'CULLAGH said the case of spina bifida he had shown that evening was ascribed by the mother to a blow on the back between the third and fourth months of pregnancy.—Dr. SMITH said he believed that nervous impressions sometimes produced these strange deformities.—Dr. SMYLY did not believe in it at all; the case was probably a remarkable coincidence and nothing more.—Mr. BROOMFIELD said there were other organs that were equally tender in this stage of fœtal life, and he failed to see why disease should concentrate itself altogether on the laminæ of the vertebræ.—Mr. MCARDLE said the object he had in bringing the case forward was to elicit the opinions of his *confrères* on the subject.

Reviews and Notices of Books.

The Life and Works of John Arbuthnot, M.D., Fellow of the Royal College of Physicians. By GEORGE A. AITKEN. Oxford: The Clarendon Press. 1892.

ENGLISH literature is not without its "opprobria," amongst the most flagrant of which is the want of any adequate biography of Arthur Jonston, M.D., physician to King Charles I. and the worthy rival as a Latin poet of George Buchanan, whose far-famed version of the Psalms he is believed by many scholars to have equalled, if not surpassed. Another of "medicine's forgotten worthies" was Dr. John Arbuthnot, in Samuel Johnson's opinion "the first man" among the wits of Queen Anne's reign, "an excellent physician," of "deep learning" and of "much humour." The "opprobrium" in Arbuthnot's case has now, we are glad to say, been for ever wiped out by a compatriot, on whose narrative of his life and edition of his works we shall have something to say presently; but in Arthur Jonston's case the "opprobrium" still stands, although, if report speaks truly, it will not long be a blemish on our literary escutcheon, a monograph on that able consultant and exquisite Latinist and poet having been promised; also by a compatriot eminently qualified for the task—Sir William Duguid Geddes, Principal of the University of Aberdeen.

Arbuthnot was a typical specimen of the young Scottish cadet—"the penniless lad wi' a lang pedigree"—of whom Thackeray speaks admiringly in his sketch of Smollett—who came up to the great world, like Dugald Dalgetty, with the "learning acquired at the Marischal College of Aberdeen," with his "gentle bluid and designation, together with a pair of stalwarth arms and legs conform," to push his way as "a cavalier of fortune." Whether, indeed, Aberdeen can claim Arbuthnot as an alumnus does not amount to more than a "moral certainty," but we know that he had acquired mathematics enough to begin life as a teacher of the same in London and to write a book, "Of the Laws of Chance," in which his proficiency in the science and his general high culture are manifest. After this we find him, on Oct. 6th, 1694, two years subsequently to the publication of that book, entering University College, Oxford, as Socio-Commensalis or Fellow-Commoner—a fact unearthed for the first time by his biographer—and acting there as companion and private tutor to a young gentleman of fortune. The next glimpse we catch of him—for glimpses are nearly all that his most patient and circumspect biographer can give us of his early years—is at St. Andrews, where he was admitted to an *ad eundem* degree in medicine in September, 1696, at the age of twenty-nine, his "thesis medica" being "De Secretione Animali." Where he received the professional education and the degree that qualified him for the St. Andrews' diploma his biographer fails to tell us, but that his medical knowledge was sound and his classical learning considerable we may infer from what George Hamilton, Principal of St. Andrews, wrote, three days after his graduation, to Dr. Charlett: "The bearer, Dr. Arbuthnot, is a gentleman of great merit, that has acquitt himself extraordinarily well both in his private and publick tryalls in solemn meetings of several Professors and Doctors of Medicine towards his promotion." His headquarters were now in London, where we find him engaged in scientific and classical authorship as a foil to the professional practice in which he had come to the front. Elected a Fellow of the Royal Society on St. Andrew's Day, 1704, he was next year, on Oct. 30th, appointed Physician-Extraordinary to Queen Anne by Her Majesty's special command "in consideration of his good and successful services perform'd as Physitian to His Royal Highnesse," Prince George of Denmark, who, it appears, "taken suddenly ill at Epsom, had been successfully treated by Arbuthnot, who happened to be on the spot and who was always afterwards employed by the Prince as his physician." His biographer might have added that the old manor house at Easthill, Wandsworth, built by Prince George for the Queen, was often visited by Dr. Arbuthnot, who attended Her Majesty's children there and caused (so says local tradition) the well-known iron staunchions to be placed on the nursery windows as a safeguard against their falling out on to the lawn below. This picturesque house, it seems, is already doomed to disappear before the extension of London. But to return. Arbuthnot was now one of the most considerable men in town, a scholar of scholars, a physician of physicians, the wittiest of the witty and a prime mover of Jacobite policy in the camarilla of which Bolingbroke and Atterbury were ruling spirits. All this part of his career is admirably set forth by his biographer, whose profound knowledge of the literature and life of Queen Anne's reign serves him in enviable stead. The doctor's familiarity with Pope, Swift and Gay is illustrated by skilful selections from the correspondence of these with other contemporary wits and public men, and his share in the political satire of the day is defined and apportioned with as near an approximation to certainty as existing documents will admit. We are glad to see that his biographer still credits him with having "been the first to apply the name John Bull to the English people" and to have drawn "the character which has ever since been accepted as a type of this honest, plain-dealing fellow, choleric, bold and of a very inconstant temper." This priority would of itself suffice to secure Arbuthnot against oblivion, but his biographer does not fail to adduce his many other more solid claims to the consideration of posterity. He has given us, in short, a masterly, full-length portrait of the most learned and most lovable professional man of Queen Anne's and of the following reign, making us understand with all the detail that was accessible the physician "who knew his art but not his trade," the prolonger of lives like Pope's, the wise counsellor in social and professional crises, the friend and the promoter of all science, to which indeed he was himself among the most scholarly and independent contributors.

Having admitted the conspicuous success of the biography we may point out a few shortcomings to be made good in a subsequent edition. We pass over the failure of the author to note from the *Gentleman's Magazine* such curious facts as Arbuthnot's public encounter with the card-playing French dog which beat the doctor at quadrille—a specimen of social manners characteristic of the time. We say nothing of his error in making Matthew Prior an Oxford man, though that, in his undoubted familiarity with "the Augustan age of English literature," is not a little surprising. But we think his otherwise complete bibliography unaccountably defective in omitting all mention of Dr. B. W. Richardson's memoir of "John Arbuthnot, M.D., F.R.S., the Medical Scholar," published in the *Asclepiad* for the second quarter of 1887. Much that is most valuable in his biography was anticipated in that memorable sketch, to which the reader has still to be referred for an adequate estimate of Arbuthnot's undoubted pre-eminence as a scientific consultant over nearly all his con

temporaries. "Respiration is the second digestion" was one of Arbuthnot's generalisations, which of itself, as Dr. Richardson eloquently points out, would stamp him as a profound observer of nature, far ahead of his time.

For the remainder of his biographer's work, the carefully edited reprint of Arbuthnot's writings, genuine and doubtful, we have nothing but unqualified praise. These may now be read without the torture inseparable from the loose spelling, the badly accented Greek, the slovenly references, the thousand and one *maculæ* which make eighteenth-century publications so often an eyesore and a penance. Their intrinsic merits, which even such typographical *déshabille* could never impair, are as fresh to-day as when they first saw the light, and if the reader wants exhilaration of the most genuine and hearty kind, the outcome of a humour second only to that of Cervantes, we could give him no better advice than that so often heard in Queen Anne's day, "Send for Dr. Arbuthnot!"

Horses in Accident and Disease. By J. ROALFE COX, F.R.C.V.S. Edinburgh: David Douglas. 1892.

WHAT might be termed the "physiognomy" of suffering is perhaps better defined in some of the domestic animals than it is in man, as in them there is much less mind and possibly no imagination to confuse or mask the expression of those sensations of discomfort, pain or agony which they experience when labouring under the effects of disease or accident. There is certainly no malingering, no fictitious appearances and no hysterical tendencies such as so often baffle and mislead the physician and surgeon; and though the veterinarian is exposed to the great disadvantage of having to minister to dumb patients who cannot tell him in words what their sensations are, yet, on the other hand and for the same reason, they cannot beguile him by a wrong description or conceal their condition by false statements. To the experienced observer of animals, one who has a natural sympathy with them, they manifest their feelings and desires in a manner which rarely varies to any extent and show in an unmistakable way the character, seat and intensity of the maladies or injuries from which they may be suffering. Nearly every disease has its own special features or symptoms, which reveal its presence and render its diagnosis a matter of little difficulty to those who have been trained and accustomed to deal with disabled animals.

Of all the creatures which come under the observation of the veterinary surgeon it might be asserted that the horse is the one which exhibits the most expression in disease—at least, it is the one which, because of its greater utility and monetary value, has been most closely studied in this respect. Its facial expression, its attitudes and its movements tell their story and inform the observer as unerringly as if the animal were endowed with speech, but this only to the observer who understands and can interpret them. Those who have attempted to describe the symptoms presented by suffering animals have always found great difficulty in doing so satisfactorily, because of the impossibility of grouping them in such a fashion as will present a faithful picture to the mind's eye and enable an untutored person to recognise the ailment treated of; and therefore in some works on diseases of animals attempts have been made to supplement the verbal descriptions by drawings representing the positions and attitudes assumed, but at best these have been little better than caricatures. To aid the veterinary student and horse amateur in distinguishing between different maladies and mishaps Mr. Cox, an able veterinary surgeon of long experience, has published a book in which verbal description is made altogether subordinate to the artistic delineation of twenty-eight cases of particular diseases and accidents frequently met with. The figures, if somewhat roughly, are yet strikingly portrayed and, in addition to being fairly well drawn, convey at a glance a capital series of object lessons in clinical veterinary medicine and surgery which cannot fail to be instructive to those for whom they were produced. The sketches of horses suffering from that most painful and serious foot disease, laminitis, from congestion of the lungs, tumour in the brain and luxation of the patella, are excellent for the instruction they afford; but perhaps the most telling is the picture of the horse affected with tetanus, in which we see the characteristic attitude of the limbs, head and tail, but especially the face with its risus sardonicus and the eye with the membrana nictitans protruding over it, giving to the disease such a strange and distressing character in this animal. The book is a novelty in its way, and does Mr. Cox much credit as an artist and close observer of equine life.

Treatise on the Diseases of Women: for the Use of Students and Practitioners. By ALEXANDER J. C. SKENE, M.D. Professor of Gynæcology in the Long Island College Hospital, Brooklyn, New York. Second Edition, Revised and Enlarged. London: H. K. Lewis. 1892.

ALTHOUGH the number of pages in this edition is almost the same as in the first, the author has managed to incorporate much additional matter by considerably enlarging the size of the page. The new chapters deal with ectopic gestation, diseases and injuries of the ureters, vesical hernia and its surgical treatment; moreover, the author has taken the opportunity of stating his most recent views on laparotomy, ovaritis and injuries of the cervix and pelvic floor.

As the book aims at presenting "the fully matured and essential facts in the science and art of gynæcology," and is intended as a text-book for students, we should not have expected to find such a passage as the following: "The effect of flexion on the uterine canal is to produce constriction or occlusion of the internal os. ..... The stricture thus formed gives rise to accumulation of the secretions of the uterine cavity and to partial retention of the menstrual products. The circulation in the uterus, as will be readily understood, is interfered with. The obstruction tends to keep up congestion, and this may eventually lead to œdema and a predisposition to endometritis and pelvic peritonitis." It would scarcely be possible to find two points as to which there has been more dispute than the relation of uterine flexion, on the one hand, to stricture of the internal os and, on the other, to the circulation through the uterus. The author does not seem to be acquainted with Dr. John Williams's well-known and convincing paper on the latter of these two questions. So far from the statements in the passage we have quoted being generally accepted as facts, we may say at once that the best English authorities hold that flexion does *not* cause obstruction at the internal os, and that it has no effect whatever in producing a state of venous congestion in the uterus.

Again, it seems to us that Dr. Skene makes too little allowance for the individual variations in form that should be classed within the limits of normal. For example, as regards the projection of the vaginal portion of the cervix, if it projects too much we find an operation is recommended to shorten it, and if it projects too little an operation is to be undertaken to lengthen it. Surely it would be as reasonable to set up an exact pattern, for instance, for the nose and to operate on all noses that differed from the author's ideal. We observe that Fig. 64, which inaccurately represented the normal relation of the uterus to the bladder in the first edition, has now been corrected. It is not easy to understand why, in a book consisting of 968 pages and containing 257 engravings, the whole subject of malignant disease of the uterus is dismissed in twenty-three pages and with only one illustration, borrowed from Winckel. It may be doubted whether the author has any personal experience of the supravaginal amputation of the cervix, for in the few lines de-

scribing it we find: "The next step is to cut with knife or scissors above the lateral fornices, taking care to avoid wounding the branches of the uterine artery. Thus we see great care must be taken in the preliminary clearing of the cervix"; whereas it is of course impossible to free the cervix laterally without cutting branches of the uterine artery, and the consequences must be provided against either by ligatures or pressure forceps. The vagueness of description as to this step of the operation may account for Dr. Skene's preference for the galvano-cautery rather than the knife, because of "the loss of blood and the uncertainty of manipulation from the hæmorrhage" attending the use of the latter.

About one-third of the book is devoted to a description of "Diseases of the Urinary Organs." The author refers somewhat contemptuously to English literature as containing little information on this subject; we think, however, we could supply a fairly long list of references as to where such information may be obtained. There are numerous illustrative cases scattered throughout the book; amongst the most interesting are those giving a clinical account of some of Dr. Keith's hysterectomies for fibroids. We have been unable to find any account of so common an affection as mucous polypus of the uterus; at all events, there is no mention of it in the index. The American system of spelling is of course that adopted throughout the book; we are not quite sure, however, whether or not "sirup" is good American for "syrup."

Les Tumeurs de la Vessie. Par J. ALBARRAN, Chef de Clinique des Maladies des Voies Urinaires à la Faculté de Médecine de Paris (Hôpital Necker). Préface par le Professeur F. GUYON. 73 Figures et 9 Planches. Paris: G. Steinheil. 1892.

THE clinical importance of a careful study of tumours of the bladder has acquired an altogether new importance since they have been brought within the domain of operative surgery. Within the last ten years many valuable works devoted to this subject have appeared, and much has been done to advance our knowledge of the pathology of these tumours and our means of precise diagnosis and satisfactory treatment. No name is more honourably associated with this work than that of Professor Guyon, and any treatise introduced to the profession by a preface from his pen demands attentive study. The book before us is probably the most valuable contribution to this branch of surgery that has yet been made. Dr. Albarran is an accomplished histologist and pathologist, and his association with M. Guyon for many years has furnished him with a very extensive clinical experience. He has already made more than one valuable contribution to the literature of the surgery of the urinary organs and he has amply demonstrated his fitness to discuss with authority such an important subject as tumours of the bladder. The work opens with a chapter dealing with the history of the subject, and then follows a capital description of the normal mucous membrane of the bladder as shown by the author's own examinations. He affirms the presence of a rich lymphatic network in the submucosa—particularly rich in the trigone—and figures it. The classification of the tumours met with is very elaborate—too minute and particular, perhaps, for clinical purposes. The morbid anatomy is well described, as are also the clinical course and the diagnosis. Dr. Albarran lays stress upon the fact that naked-eye appearances of a tumour are no safe test of its structure, and also that its minute structure is no criterion of its clinical history. While none of the infiltrating tumours examined by him were benign in character, fully half the pedunculated epithelial tumours were malignant in nature. He points out how long a history some malignant tumours have, and is of opinion that a benign tumour may become malignant and that a cancerous growth may develop in an innocent tumour. The question of treatment is very fully discussed, and the numerous operations that have been devised for these diseases are carefully described and appraised. While condemning some of the more extensive and hazardous, he advocates a more free and more careful removal of even the simplest pedunculated growths than is usually practised here. Preferring in all cases the supra-pubic route, he has abandoned the forceps recommended by Thompson, and cuts away the tumour with the knife and scissors, being careful to remove all the mucous membrane from which it grows, and in many cases the muscular wall of the bladder itself, and then sutures the edges of this wound in the bladder. He describes and figures some good examples of secondary infection of the bladder by contact with the tumour, and demonstrates also, what has been denied, that secondary deposits may occur in the pelvic lymphatic glands and also in other internal organs. The work closes with a capital table of cases—first those seen and examined by himself, then those recorded by other surgeons. Dr. Albarran is very thoroughly acquainted with the literature of the subject and very numerous references to the writings of others are given. He is to be most heartily congratulated on the result of his labours, for he has produced a most admirable and valuable treatise, which is the best work of reference on this subject that has yet been published.

Medical Electricity. A Practical Handbook for Students and Practitioners. By W. E. STEAVENSON, M.D., and H. LEWIS JONES, M.A., M.D. London: H. K. Lewis, 1892.

BY the early death of Dr. Steavenson the science and art of the application of electricity to the diagnosis and treatment of disease lost a foremost exponent, one who had thoroughly mastered the intricacies of the subject and whose writings upon it had already attracted much attention. The present monograph, intended to be, as it will no doubt become, a standard text-book, was planned and commenced by him, and the task of collating the fragmentary portions which he left, and of supplying all that remained to give the work completeness, fell to Dr. Lewis Jones. This has involved the contribution by the latter of the major part of the volume, and the manner in which his duty has been performed is worthy of all praise. Unlike many treatises on the subject a large amount of space is devoted to the exposition of the various forms of electricity and its apparatus; and herein we think the authors have done wisely. It is obvious that the student of electricity in relation to physiology and disease ought to start with a clear comprehension of the physical science itself, and it is well not to take for granted a knowledge which may be at the best vague and imperfect, whilst nothing but good can come of a fresh consideration of a branch of physics which formed a part of his elementary education. These matters, too, are treated in a clear and concise manner—statical electricity being first described and then electricity in motion, with valuable explanations of laws and definitions. These chapters are followed by one on the apparatus of statical electricity and the mode of its application, and that by others upon galvanic batteries and accessory apparatus. The preference is given for medical purposes to the Leclanché cell and useful hints are given as to the choice and care of batteries. Indeed, the practical character of the book is one of its main and most valuable features. The chapter upon physiology is full of interest, although it demonstrates the comparative obscurity which veils the question of the action of the electric current upon the tissues generally, apart from its special effect on nerve and muscle. There is no doubt that this imperfection in knowledge has done much to propagate erroneous ideas concerning the effects of electrical treatment, and the lack of scientific explanation has given unbounded opportunity for surmise and conjecture. The labours of Professor

Erb have done more than any other work to throw light upon the value and meaning of electricity as an aid to diagnosis, and accordingly in the chapter devoted to this latter subject Erb's methods and conclusions are largely drawn upon. A short chapter on general therapeutics, in which we are glad to note the deprecation of electrical treatment being carried on by the patient himself, and the inutility of so-called "electric belts," is followed by one on the electric bath which Dr. Steavenson described in the columns of THE LANCET. The precise value of this mode of application of electricity can hardly as yet be estimated, but it is claimed to act beneficially as a tonic, and therefore to be of use in many conditions of purely functional debility, as well as in certain organic states. The treatment of nervous diseases and of other conditions in which galvanism or faradaism can be found useful is dealt with more from the published experiences of other writers than from those of the authors. The work concludes with chapters on electrolysis, the galvanic cautery &c. We think the book to be sound in its teaching and practical in execution, and believe it will meet with merited success.

LIBRARY TABLE.

The Extra Pharmacopœia. By WILLIAM MARTINDALE, F.C.S., and W. WYNN WESTCOTT, M.B. Lond. Seventh Edition. London: H. K. Lewis. 1892.—Almost before there has been time for a due appreciation of the excellences of the sixth edition of Martindale's "Extra Pharmacopœia" the indefatigable compilers in presenting a seventh edition prove once more the great strides which are being made in pharmacy. Fortunately, as the name indicates, a large proportion of the material in this handy book is merely on trial, and will doubtless be condensed or deleted in later editions, otherwise the crowd of new remedies would appear to be overwhelming. Still, new drugs are constantly being recommended, and the advantages of this accumulation of new facts and suggestions are sufficiently appreciated by the medical profession. The new edition is in every respect as reliable as before, and it contains useful references to all newer remedies, indicating not only the most convenient way in which they may be employed, but also the results which have been given in various forms of disease in the hands of different observers. The book is one to which we can extend a cordial welcome and for which a large sphere of usefulness may be predicted.

Diagnosis by the Urine. By ALLARD NUMMINGER, M.D. Philadelphia: P. Blakiston, Son and Co. 1892.—This little work forms one of a large class of manuals for which there always seems to be a demand. It covers nearly all the ground essential to the determination of the characters and composition of the urine for clinical purposes, and is therefore of some utility. The author gives some of his own experiences which will be appreciated—as, for instance, his statement that when the daily quantity of urea falls habitually below twenty grammes in an adult of active pursuits and well-nourished body disease of the liver or kidney may be suspected; and of the detection of small quantities of albumen by suddenly plunging the test-tube into cold water after boiling the urine with acid. He only describes the hypobromite method of urea-estimation, advising the urometer devised by Dr. Doremus, and does not mention the fermentation-test for sugar in the urine. We note also the absence of any reference to Ehrlich's reaction, or to the significance of excess of indica in the urine. The book, too, which is well illustrated, is capable of some expansion without detracting from its utility.

Essentials of Diagnosis. By SOLOMON SOLIS-COHEN, M.D., and AUGUSTUS A. ESHNER, M.D. Philadelphia: W. B. Sanders. 1892.—In this work we find the subject of medical diagnosis treated in a novel way—namely, by means of "question and answer." The plan is ingenious and may be helpful to the student; but we confess we should not care to see it too much extended. The "answers," which, of course, form the bulk of the text, are ample and sufficient, the leading points being clearly and concisely enunciated. After all the plan adopted is only another way of subdividing subjects, a slight departure from the orthodox method of chapters and sections, and the real merit of the book lies in the accuracy of its text.

Eye-strain, commonly called Asthenopia. By ERNEST CLARKE, M.D. Pp. 168, with twenty-two Illustrations. London: J. & A. Churchill. 1892.—In this little volume Dr. Ernest Clarke, without offering to the profession anything absolutely new, has placed the well-known features of excessive work of the eyes, especially in the case of patients who are affected with some error of refraction or who suffer from muscular or nervous debility, in a clear and easily intelligible form. The treatise is an expansion of a paper read before the West Kent Medico-Chirurgical Society. Asthenopia, proceeding from overwork and fatigue of the retina, was recognised though not thoroughly understood by Taylor in 1766 and by Scarpa and Beer at the beginning of the present century, whilst Mackenzie dimly perceived that it was sometimes in part dependent upon the exhaustion or imperfect action of the extrinsic muscles of the eye; but the etiology of the affection was not cleared up until the whole subject of refraction had been worked out by Donders, who maintained that in the common form of asthenopia hypermetropia is scarcely ever absent. The finishing touch to our knowledge of the causation of the disease was given by von Graefe, who demonstrated the importance of impairment of the power of convergence in inducing asthenopia and therefore of weakness of the internal recti muscles. Dr. Clarke describes in succession the various conditions which may induce eye strain and gives concise but clear accounts of the several subjects of accommodation, hyperopia and myopia. He regards the shadow test as the best method for diagnosing astigmatism. He accepts Foster's statement that the primary position of the eyes is that which is assumed when, with the head erect and vertical, we look straight forward to the distant horizon. There seem to be good reasons, however, for thinking that the eyes are really at rest when they fix a distant object about 15° below the plane of the horizon. Their visual axes are then probably parallel or nearly so. The section on muscular insufficiency gives the details of the various methods in use for determining the amount of the insufficiency and of treating that condition. He comments on the extraordinary frequency with which tenotomy is performed in America, one practitioner having operated no less than 2000 times. Well may he call it "tenotomy mania." The final chapter is devoted to Retinal Asthenopia. This little monograph upon an important subject has been well thought out and well written by the author.

A New Pronouncing Dictionary of Medicine: being a Voluminous and Exhaustive Handbook of Medicine and Scientific Terminology, with Phonetic Pronunciation, Accentuation, Etymology &c. By JOHN M. KEATING, M.D., LL.D., and HENRY HAMILTON; with the collaboration of J. CHALMERS DA COSTA, M.D., and F. A. PACKARD, M.D. With an Appendix. Pp. 818. Edinburgh and London: Young J. Pentland. 1892.—The nature and scope of this work are pretty well defined by its title. In addition, however, to the features enumerated above there are a table of medical abbreviations, which is indeed common to other medical dictionaries, and a table of suffixes and prefixes, which, so far as we are aware, is not included in other books of this class. The appendix is pretty full and will be found of great use for purposes of reference. It gives tables of weights and measures, a table for calculating the period of utero-gestation and another of equivalents of centigrade and thermometric scales, pictorial illustrations of diameters of the fœtal head, a chart

depicting nerve distribution &c., characteristics of bacteria, pharmacological data, lists of incompatibles and of poisons, diagrams of motor points, synonyms of disease &c., formulæ of solutions in common use, and some other matters. This dictionary, though not of course pretending to compete with Billings' work or with Foster's "Illustrated Encyclopædic Dictionary," is, on account of its convenient size and the clearness of its typography, to say nothing of the value of the appendix, likely to meet with great favour. We have not gone into a critical examination of the book, but are glad to welcome its appearance on account of its distinctive features and its handy and presentable form.

Domestic Electric Lighting treated from the Consumers' Point of View. By ED. C. DE SEGUNDO, Assoc. M.Inst.C.E. London: H. Alabaster, Gatehouse and Co., 22, Paternoster-row, E.C.—In this interesting *brochure* the author endeavours to clear up some of the elementary difficulties with regard to electric lighting. He shows that, economically considered, electricity compares favourably with gas and oil, and he gives some valuable information about wiring and insulating wires without recommending any particular method, however, although the expense of several of them, with notes on their respective advantages and disadvantages, is discussed. Public interest was considerably spurred in this direction by the domestic department of the Electrical Exhibition at the Crystal Palace, but sparse attention was paid to the details and mode of lighting. The book should serve as a useful guide to any who intend to use electric light for domestic purposes and it may help to clear up many hazy ideas on this interesting branch of the subject.

Civilisation and Progress. By JOHN BEATTIE CROZIER. Third Edition. London: Longmans, Green and Co. 1892.—The third edition of this work has now been issued, revised and enlarged, after being out of print for the last three years through "various hindrances," as its author tells us in his preface, and "in the face of a steadily increasing public demand," which we can well believe. The book deals with subjects of perennial interest in an original and attractive way, and is written in a fluent metaphorical style that catches the attention and keeps it fixed; it bears, moreover, the impress of conviction. In his preface to the second edition, which appeared in 1888, the author answers some of his critics, and in revising the present issue he has more fully attempted to meet their objections. The alterations and additions, which are not numerous, comprise the substitution of fresh titles to a few chapters and the introduction of some explanatory passages in the text, notably a section on Hegel's "Philosophy of History" towards the end of the book, and another near the beginning entering more fully into "the New Organon," or method employed to investigate and, as the author believes, to solve the problem involved in the complex phenomena of civilisation and progress. The field covered is extensive—practically exhaustive—and the reader is carried swiftly from Tradition to the Future in seven-league strides. The chapter devoted to Cardinal Newman and to some of the fallacies of his teaching is especially interesting, as also are those which deal with vigour and directness with the systems of such men as Bacon, Carlyle, Comte, Emerson and Herbert Spencer, and the merits of the New Organon are set forth with such entire confidence that the author's system is at least deserving of examination and his book of the attention which it compels.

Scenes in Fairyland. By Canon ATKINSON. London: Macmillan and Co. 1892.—*The Girls and I: a Veracious History.* By Mrs. MOLESWORTH. London: Macmillan and Co. 1892.—Amongst the publications which fill the booksellers' shops at Christmas time those intended for children occupy a large space. Indeed it is a striking fact that the amount and quality of children's "light literature" are year by year increasing. To be sure no modern book will detract from the interest of Andersen and Grimm, and we would not venture to compare Canon Atkinson's contribution to fairy lore with stories from their inimitable pens. Still the author of "Forty Years in a Moorland Parish" never writes without telling something worth hearing, and in the extravagances of imagination permitted to the writer of fairy tales he is just as charming as in his description of existence in a country village. The other little book, by a well-known writer for children, is a simple but well-told story, very natural and very homely and healthy.

The Veterinary Journal. London: Baillière, Tindall and Cox.—The numbers of this monthly periodical for November and December contain much interesting matter, in addition to reports of veterinary associations and valuable extracts and *précis* of articles from German, French and Italian journals relating to animal medicine and surgery. Among the more important original communications the numbers contain are one on the diagnosis of glanders by the hypodermic injection of mallein from the pen of Professor Dégive, director of the Brussels Veterinary School, in which the great value of that agent is again clearly demonstrated; an interesting case of intestinal obstruction in a mare due to a large ovarian cyst; an account of an outbreak of epizoötic abortion among cattle in Australia; an instructive paper on the use of anæsthetics for diagnostic purposes; another on hepatic apoplexy in horses; a suggestive article on septic pleuro-pneumonia in calves, by Professor Lienaux; and an exceedingly important description of the "maladie du coit" (recently noticed in a special article in THE LANCET) as it is observed in the United States, into which the disease has been imported from France. This communication is from the patho-biological laboratory of the University of Nebraska, and the reporter states that there is much reason for believing that the bacterium giving rise to the disease has been at last discovered. This journal continues to give very satisfactory evidence of the steady progress veterinary science and art are making at home and abroad.

Annual of the Universal Medical Sciences. A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by CHARLES E. SAJOUS, M.D., and seventy Associate Editors, assisted by over two hundred Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-lithographs, Engravings and Maps. The F. A. Davis Company, Publishers, Philadelphia, New York, Chicago and London. 1892.—Our readers are already familiar, from our notices of previous editions of this valuable series, with its general scope and great utility. The fact that there are so many medical men of standing engaged in the production of the work is a sufficient guarantee for the excellence of it, and this, the fifth series, does not suffer from a comparison with its predecessors. Although there are few changes, and none of much importance, in the arrangement of the facts culled from so many sources and presented in a readable form to the profession, they are all in the direction of improvement. "The Annual by no means pretends to have reached the point of excellence that it is hoped it will some day attain. A conscientious attempt to make it advance as rapidly as possible has been made, but many are the shortcomings still to be conquered and the developments still to be evolved." But few changes have been made in the associate staff. Dr. Joseph O'Dwyer has undertaken the department of "intubation" and Dr. Baruch that of "climatology and balneology," to which has been added a section of "hydrotherapy." Dr. Witherstone no longer prepares the index, a very laborious work, there being a separate index to each of the five volumes, the one at the end of the fifth volume being a general one, but this is undertaken by Dr. Kyle and Miss N. I. McCarthy. The references to contributions printed in THE LANCET are numerous. In mentioning cases from the "Mirror of Hospital Practice," however, a mistake is frequently made in attributing the intro-

ductory remarks on cases to the writer of the notes and not to our own editorial department.

The Satellite, a monthly review of the progress of practical medicine throughout the world, as presented in the reports of the corresponding staff of the "Annual of the Universal Medical Sciences" and in the medical press at large, is edited by Dr. Sajous with Dr. Witherstone as associate editor. It is unnecessary to do more than draw attention to the publication, its scope and usefulness being indicated by the above statement. Being published monthly it is possible for the practitioner to keep himself more easily abreast with the progress made in various branches of the profession abroad than could be done by a perusal of the Annual only, and he obtains this information at an earlier date. Being produced with the advantages named its good quality is guaranteed and a perusal of the numbers which have already appeared enables us to add our testimony to the favourable opinion of others with regard to it.

The Quarterly Journal of Microscopical Science. No. 133, Vol. XXXIV. Part I. August, 1892.—This part only contains two memoirs. The first, a very full and complete account of the Anatomy of Pentastomum Teretiusculum *Baird*, by W. Baldwin Spencer, of Melbourne University; and the second on the Minute Structure of the Gills of Palæmonetes varians, by Edgar J. Allen, of University College, London. The former paper is illustrated with nine carefully drawn plates containing many figures, and the latter with one plate.

Analytical Records
FROM
THE LANCET LABORATORY.

[IN consequence of the great increase of work which has devolved on the analytical department during recent years it was last year decided to have an entirely new laboratory constructed. This has been done, and an excellent laboratory, built on lines which a long experience with general chemical investigation has suggested as best, now occupies a part of THE LANCET premises, so that the work carried on there is under direct editorial supervision. The laboratory, which is divided into two rooms, has been planned of course to meet the special requirements of THE LANCET. Thus it has been provided with all modern apparatus and fittings especially adapted for carrying on sanitary inquiries, the analysis of beverages, foods, drugs, water and gases &c. It is particularly well lighted and ventilated, being situated on the top floor. The benches are amply supplied with gas, water and waste fittings; while here and there taps are provided by which air may be withdrawn from any part of the laboratory by means of a powerful water pump. The balance by Oertling is the newest pattern of short beam, with agate knife edges and planes, rider slide and plate-glass sole; it turns with $\frac{1}{10}$ gr. and carries 5000 gr. The weights are coated with platinum to ensure constancy of weight; they are thus protected from the oxidising action of the air and the attack of acid vapours. The large spectroscope and the pocket spectroscope are by Browning, and the microscope by Zeiss is provided with Zeiss's polariscope attachment. For the analysis of gases Hempel's improved apparatus has been adopted, while the newest form of Sprengel mercury pump has been procured for the production of vacua. A Gay Lussac barometer is employed for the measurement of pressure. The fume chamber is situated in a remote corner of the room and is provided with a ventilating shaft, whilst the gas-supply may be regulated from without so that the doors of the chamber need not be opened when the burners require to be adjusted. For the analysis of organic substances in which combustion is involved Fletcher's convenient furnace is employed, while for glass-blowing &c. the same maker's blowpipe and bellows have been obtained. The shelves carrying the reagents can be adjusted to the height of the bottles to be used in any particular analysis in process of examination. The inner room is set apart for literary work and is provided with bookcases containing the latest editions of the literature of chemical science. By taking these steps, which have involved considerable outlay, we hope to continue with even greater accuracy, care and assiduity, those investigations which have always been so marked a feature of the work of THE LANCET.]

VARIOUS TOILET PREPARATIONS.

(NAPOLEON PRICE AND CO., PROPRIETORS OF THE ROYAL PERFUMERY CO. DEPOTS: 27, OLD BOND-STREET, W., 164, ALDERSGATE-STREET, E.C.)

The progress that has been made during the last decade in the art of soap making and in the making of other articles of the toilet is certainly remarkable. Soaps in times gone by were more or less the products of a haphazard formula, of which not infrequently substances other than alkali and fat, and oftentimes of an injurious nature, formed a part. Now, on the contrary, it is the aim—certainly of manufacturers of repute—to produce a soap as nearly chemically pure as manufacturing on a large scale will permit. Indeed, so admirably prepared are many soaps that they may be regarded as the pure salts—oleates, pelmitates or stearates—of sodium. The soaps of the above firm give evidence of this; for according to analysis the ingredients are excellently balanced, they are practically free from moisture, and contain but the merest traces of those agents which are necessarily introduced in the course of manufacture. The soap, not inaptly called Velveen and also Twentieth Century Toilet Soap, is of especial excellence. It is delicately scented and evidently made from the best materials. On analysis it was found to contain 8·61 per cent. moisture and 9·50 per cent. combined alkali (Na_2O). Edelweiss soap, which, as its name implies, is made fragrant with excellent Edelweiss perfume, is another admirable specimen of manufacture. It contains still less moisture—6·65 per cent.—while the combined alkali amounted to 9·97 per cent. In brown Windsor soap the moisture amounted to 10·24 per cent. and the combined alkali to 9·30 per cent. It is well suited for ordinary use. Baby soap was perfectly free from alkali, the combined Na_2O amounting to 9·97 per cent. and the moisture to 9·03 per cent. The Glycerine and Cucumber soap was equally satisfactory; the combined alkali amounted to 9·60 per cent. and the moisture to exactly 10 per cent., while the green colouring was ascertained to be of a perfectly harmless nature. Eucalyptus and Pine Oil soap affords an example of a very superior antiseptic soap. Other soaps examined were as follows: Coal-tar soap, improved carbolic soap and a stick of shaving soap. The coal-tar specimen responded feebly to the test for free alkali, but the shaving soap, like the rest, was remarkably free from impurity. The following articles of the toilet were also examined: the Edelweiss toilet powder, the nursery and toilet powder, the Edelweiss tooth paste, cherry tooth paste, a golden oil for the hair, as well as the undermentioned perfumes: Edelweiss beau-ideal perfumes, concentrated essence of Spinarosa (a new perfume from Guatemala, where the flower has grown unnoticed for years) and a perfume styled Gloriola. The tooth pastes are very agreeable in the mouth, are antacid and antiseptic and contain perfectly harmless ingredients. The Edelweiss toilet powder is fragrant with perfume and was found to be composed of a certain starch, together with exceedingly finely pulverised chalk and a micaceous substance. The nursery toilet powder contained only comminuted starch, delicately scented. The golden oil is an attractive-looking pomatum which is solid at ordinary temperatures, but which melts to a clear amber oil on warming. The oil did not appear to saponify when

treated with alkali; it is therefore not liable to become rancid or undergo any undesirable change on exposure to air. Each of the perfumes yielded milky fluids when diluted with water, owing to separation of essential oils, undoubtedly derived from their respective flowers, and on adding ether the milkiness at once disappeared. As already indicated and subsequently confirmed by analysis, the toilet preparations of this firm afford excellent types of the state of perfection to which the manufacture of soap and similar articles has been brought.

LIQ. COLCHICINÆ SALICYL.

(HOPKINSON AND CO., NOTTINGHAM.)

A dark-brown acid solution with bitter saline taste. On adding sulphuric acid it turns solid from separation of salicylic acid, which dissolved in ether and yielded a violet colouration with iron perchloride. Benzene extracted from the liquid made alkaline with soda, the alkaloid colchicine, which was recognised by the yellow reaction it gave with both acids and alkalies. The vapour of alcohol obtained on boiling the liquid ignited with a blue flame, tinged now and again with red, which when viewed with the spectroscope proved to be due to lithium. It further contains cimicifuga.

LIEBIG'S EXTRACT OF MUTTON.

(R. W. ANDERSON, 92, UPPER THAMES-STREET, E.C.)

In spite of the process through which this preparation must have gone in order to obtain so excellent a degree of concentration it forms a very palatable broth when simply dissolved in warm water, although obviously the flavour is considerably improved by the addition of fresh vegetables. It is eminently rich in the extractives of mutton, as may be gathered from the following analysis: Moisture, 11·60 per cent.; mineral solids, 21·74 per cent. (phosphate and common salt); meat extractives, 66·66 per cent., containing as much as 10·03 parts of nitrogen. It is perfectly devoid of fat and is therefore suited to feeble digestions and to invalids who cannot partake of ordinary mutton broth. Whilst doubtless it possesses restorative properties in that it contains creatin and other valuable nitrogenous extractives of mutton, and is on this score admirably fitted as an adjuvant to soups and other food preparations, it cannot be regarded as possessing *per se* any real nutritive value, because it is necessarily free from albumen and fibre. We note with satisfaction the absence of injurious preservatives.

PALATABLE COD-LIVER OIL.

(T. CHRISTY AND CO., 23, LIME-STREET, E.C.)

This is a clear golden-yellow oil in which the taste of the cod-liver oil is well-nigh masked by the flavour of cinnamon and some sweetening agent. Hot water dissolves out the sweetness which suggests glycerine or saccharine as a derivative. On stirring the oil with strong sulphuric acid the well-known crimson reaction was obtained. To our palate the taste is not disagreeable and those persons to whom other forms have proved repugnant should try this preparation.

SHUTTLEWORTH'S COCOA ESSENCE.

(W. S. SHUTTLEWORTH AND CO., 34, FENCHURCH-STREET, E.C.)

Free from husk, readily miscible with hot water and containing a comparatively small proportion of fat—are our analytical notes respecting this specimen of cocoa. Raw cocoa contains, as we have before pointed out, as much as one-half of its weight of indigestible fat, and its removal not only eliminates an objectionable ingredient, but its value is thereby enriched because the nitrogenous and stimulating principles are simultaneously concentrated. The above cocoa has been prepared on these lines and its genuine nature is indicated in the following analysis:—Moisture, 5·01 per cent.; fat, 15·60 per cent.; ash, 4·61 per cent.; alkalinity of soluble ash, 0·60 per cent., calculated as Na_2CO_3. More than two-thirds of the fat have been skilfully abstracted, in spite of which the flavour of the final product or its infusion is all that can be desired.

DR. THEINHARDT'S FOOD FOR INFANTS AND HYGIAMA FOOD.

(AGENTS, SORENSEN AND CO., 38, GREAT TOWER-STREET, E.C.)

So favourable was the first impression conveyed to us on a mere inspection of these foods that we submitted them to careful examination and a somewhat extended analysis. They are both rich in carbo-hydrates, the greater proportion of which is soluble. The food for infants contains less nitrogen than the food called hygiama, while the latter possesses a pleasant malt-like cocoa flavour (owing to the cocoa it contains) and the former a very agreeable taste resembling malted milk. Valuable mineral constituents, the phosphates of lime and potash, occur to a remarkable extent in both preparations. Analysis gave the following results:—Hygiama: moisture, 3·41 per cent.; fat, 5·01 per cent.; ash, 3·81 per cent.; nitrogen, 3·65 per cent.; carbo-hydrates (chiefly soluble), 64·77 per cent. Infants' food: moisture, 8·00 per cent.; fat, 0·5 per cent.; ash, 2·76 per cent.; nitrogen, 2·2 per cent.; carbo-hydrates (mainly soluble), 74·78 per cent. Under the microscope there were indications of the foods having been partially digested, unchanged starch cells were scarce, while dextrin and sugar were present in abundance. These foods are doubtless of high dietetic value, and the ingredients of which they are composed are evidently derived from the best of materials. In addition the flavour of each is very pleasant and calculated to stimulate even a feeble appetite. They are well suited for invalids and infants or for general use. Whilst admitting in the face of our analyses the excellence of these foods, the fact of the name of a medical man being attached to them calls, we think, for adverse criticism.

NUTRIENT WINE OF BEEF PEPTONE.

(ARMOUR AND CO., CHICAGO, AND 59 AND 60, TOOLEY-STREET, S.E.)

It is well known that peptones are precipitated by strong alcohol, but in the above preparation, in which an excellent sherry is the vehicle, the alcohol, while it is not in sufficient quantity to render the peptones insoluble, tends in all probability to preserve the peptones from objectionable putrefactive change. That true peptone was present was evident from the tests we made; thus with a few drops of copper sulphate and an excess of caustic soda a rose-red colour was produced. Phospho-tungstic acid, again, gave an abundant precipitate, as did also saturated ammonium sulphate. When evaporated to dryness the residue amounted to 27·42 per cent., of which 0·67 part was nitrogen and 1·82 parts mineral matter (chiefly phosphate of potassium and chlorides). It is a restorative and nutrient wine of distinct value and its employment in some cases would be preferable to the ordinary beef wine, inasmuch as the nutrient material in it is presented in a predigested state. The taste is satisfactory. Each fluid ounce is stated to contain the nutritious constituents of one ounce of prime lean beef.

BROMO-SODA, INGLUVIN AND FLUID EXTRACT OF CASCARA SAGRADA.

(WARNER AND CO., PHILADELPHIA, AND F. NEWBERY AND SONS, 1 AND 3, KING EDWARD-STREET, E.C.)

Bromo-soda is a skilfully prepared granulated salt containing as active ingredients caffeine one grain and sodium bromide thirty grains. The caffeine can be liberated with an alkali extracted with chloroform and recognised by its very characteristic appearance and chemical tests. It is an agreeable effervescent saline and under the guidance of a physician may be administered with advantage in headache, overexertion and depression. Ingluvin is obtained from the crop of the domestic fowl and may be regarded as a pepsin sub-

stitute. It resembles pepsin powder in appearance, burns with a disagreeable smell and leaves little or no residue. No evidence of its digestive action on coagulated albumen was gained, but it was found to convert starch very readily. The Cascara Sagrada preparation is a fluid extract containing alcohol. It is a dark-brown clear liquid, slightly acid to test paper, turning turbid when treated with water and clearing again on addition of alkali. It is evidently not lacking in the active ingredients of the "sacred bark."

BYNO-HYPOPHOSPHITES.

(ALLEN AND HANBURYS, PLOUGH-COURT, LOMBARD-STREET, E.C.)

This is an excellent preparation in which are ingeniously combined the hypophosphites of iron, lime, potash and manganese, with the alkaloids of nux vomica in combination with the well-known active malt essence, bynin, of the same firm. We have proved its efficacy as regards digestive power, while the tonic salts already indicated and the alkaloids of nux vomica were readily detected. The ash contained an abundance of phosphates, part of which are of course derived from the hypophosphites originally present. Putting on one side its undoubted therapeutic value, attributable to the hypophosphites, the liquid malt itself not only affords an excellent vehicle in the place of ordinary syrup, but it obviously increases this value by reason of its digestive action.

FIRE BRIQUETTES.

(CARTVALE CHEMICAL COMPANY, LIMITED, PAISLEY.)

These are composed of a resinous, inflammable material worked into briquettes with sawdust. They readily ignite and remain incandescent for some time after the more combustible constituents are exhausted. Although they are more convenient to use than ordinary firewood, they are decidedly slower in producing a well-lighted fire, and the material is of such a nature that, like turpentine and camphor, it burns with intensely sooty flame. This is a drawback, perchance a trifling one; but the less smoke there is produced the better, whether it is from the fuel with which the fire is lighted or from that which serves afterwards to keep up the fire.

ALBION MILK AND SULPHUR SOAP.

(THE ALBION SANITARY SOAP CO., 76, NEW OXFORD-STREET, W.C.)

In one respect only are we able to speak favourably of this soap. It is beautifully white, as white as any similar preparation we have seen, but in regard to its claim to the title of "sulphur soap" we are doubtful. In the specimen submitted we failed to recognise sulphur in any form that could be regarded as of "sanitary" value. Moreover, it contains free alkali and this fact is calculated to make itself evident to tender and delicate skins.

BRAND AND CO.'S MEAT JUICE.

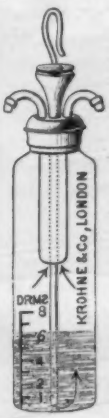
(BRAND AND CO., 11, LITTLE STANHOPE-STREET, MAYFAIR, W.)

This is a powerful, nourishing and stimulating fluid, obtained from prime beef by submitting it to pressure in the cold—a method of preparation which must be regarded as highly satisfactory, for, according to our analysis, the valuable principles of the meat have not only been preserved intact, but the fresh, agreeable and natural flavour of beef has also been retained. On warming it turns quite solid from the presence of unaltered albumen. When spectroscopically examined the characteristic hæmoglobin absorption bands are observed, but, after boiling, the clear liquid no longer exhibits this property, while the coagulum assumes a dark-red colour. Analysis gave the following results: Water, 60·00 per cent.; beef extractives, 29·65 per cent. (containing 3·06 parts of nitrogen); and mineral matter, 10·35 per cent., consisting chiefly of soluble phosphates and common salt. No objectionable preservatives were detected. The alimentary value of the preparation is evident.

New Inventions.

FURTHER IMPROVEMENTS IN INHALERS FOR FACILITATING SAFE ADMINISTRATION OF CHLOROFORM OR METHYLENE.

THE well-known feather serving as a respiration indicator in the inhalers which were described in THE LANCET of April 17th, 1891, was originally made to rise by expiration to an angle of 90°. Messrs. Krohne and Sesemann now put a check in the axis, into which the feather is fixed, which prevents it from rising above an angle of 50° or 55°, which permits a more accurate estimation of the strength and character of the respiration. They also make a number of perforations around the rim of the inner cone of their inhalers upon which the feather falls at inspiration, by which it is made more certain that free respiration is not interfered with. They also make a chloroform bottle, as shown in the engraving, in which they combine both the improvements suggested by Dr. W. Dudley Buxton and Mr. C. Braine—viz., the addition of a funnel for facilitating refilling during a prolonged operation and an arrangement of their own for preventing the injection of fluid chloroform or methylene by accidental over-tilting or turning the bottle upside down. It is of a size a trifle larger than the ordinary Junker's. They also introduce a new device of their invention for watching the respiration by hearing. A double tube is made for use in operations on the mouth, nose or face. Through one of the tubes the narcotic vapour is administered in the usual way, whilst the second tube is brought in direct communication with one or both ears of the administrator in the manner of a single or double flexible stethoscope, enabling him to watch and estimate the respiration by the corresponding sound conveyed to the tympanum. They have also adapted the hearing tube to their plain open-ended cone, by means of which the respiration can be watched during every stage of the administration and, if desired, by several observers at the same time.



AN OPHTHALMIC ATLAS FOR RECORDING PATHOLOGICAL CONDITIONS OF THE FUNDUS BY MEANS OF SUPERIMPOSED LAYERS OF COLOUR.

THIS little atlas, which has been devised by Mr. Frank Haydon and which is only about three inches and a half square and therefore is easily carried in the pocket, will, we think, prove of great utility in the out-patient room and in the wards of a hospital. It consists of a series of plates exhibiting the fundus of the eye and optic disc printed in vermilion similar to those published in 1886 by Dr. Haab, but differing from them in the circumstance that beneath the vermilion is a layer of black pigment, representing the choroid, whilst beneath the black is a layer of enamel white. In some of the plates the usual arrangement of the retinal vessels is inserted, others present the disc only on a red ground, the vessels being omitted. The advantage of the triple layer of colour is that by gently scraping away the red superficial layer with a penknife the black layer is brought into view, whilst by scraping the black away the white enamel representing the sclerotic is exposed. Pathological appearances can thus be roughly but easily rendered and much time saved, for it is difficult, as all know who have tried it, to make a good surface with vermilion and the introduction of the disc and vessels is troublesome on the damp colour. Five minutes' work with a knife will serve to fix the condition of the fundus that would otherwise be lost. The atlas is made by Messrs. Down Brothers, St. Thomas-street.

HOSPITAL DRESSER'S TABLE.

THE utility of this table, which is made by Mr. Alfred Carter of 47, Holborn Viaduct, E.C., will be apparent on examination of the accompanying illustration. It has a solid marble top with ledges and rails, a sliding slab for cutting and preparing bandages &c. There are two drawers divided into compartments. These drawers run through the entire length of the table, so as to be available from either end. The bottom shelf is useful for bowls &c. There is also a towel rail at the back. The table is mounted on strong brass castors and is strongly made in polished birch, forming a compact, useful article. It will be a boon to some of our large surgical wards.

"THE LANCET" SPECIAL COMMISSION ON MALARIAL FEVER IN TROPICAL AFRICA.

THE following gentlemen have sent answers to our queries :—

Anderson, D. E., M.D. Paris, M.B., B.A., B.S.C. Lond., M.R.C.S., L.R.C.P., L.S.A. Lond., Rue du Bois de Boulogne, Paris.

Battersby, C. F. Harford, B.A., M.D., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., Niger, West Africa.

Beatty, J. W., M.D., Surgeon on the Medical Staff, Sierra Leone.

Cavanagh, A., Surgeon-Major, A.M.S.

Churcher, T. G., M.B. Edin., M.R.C.S. Eng., Tulloch Memorial Hospital, Tangier, Morocco.

Clements, W. G., M.R.C.S. Eng., Surgeon-Captain, Sierra Leone.

Crutwell, H. Athill, L.R.C.S., L.R.C.P. Edin., First Class Honours in Diseases of the Tropics, Colville-square, Bayswater, London.

Deacon, J. G., M.D., M.Ch., L.A.H., Diploma State Medicine, Egerton Villas, Military-road, Cork.

Eaton, R. C., Surgeon-Lt.-Col., U.S., Fermoy, co. Cork.

Felkin, R. W., M.D., F.R.S. Ed., F.R.G.S., &c., Alva-street, Edinburgh.

Gore, Alfred A., M.D., M.R.C.P.I., F.R.C.S.I., Surgeon Colonel, A.M.S., Headquarters, Chester.

Kilroy, P. E., Brigade-Surgeon, Lt.-Col., A.M.S., Station Hospital, Limerick.

Lamprey, J. J., Surgeon-Major, A.M.S., Junior Army and Navy Club, London, S.W.

Lawson, Robert, Superintendent of Hospital, Lansdown-road, Notting-hill, London.

Lome, R. Whittington, M.D., Upper Berkeley-street, London

Macnamara, W. J., B.A., M.D., M.Ch., Surgeon Captain Army, Portsmouth.

Mangan, F. M., M.R.C.S., L.R.C.P., Fairholme-road, West Kensington, London.

Martin, J. W., M.D., F.R.C.P. Edin., Ferry-road, Leith.

Morgan, A. H., L.R.C.P.I., L.R.C.S.I., Surgeon Captain, Army and Navy Club, Pall-Mall, London.

Parke, T. H., Hon. D.C.L., Surgeon Captain, A.M.S., Royal Victoria Hospital, Netley.

Poole, W. C., M.B., B.Ch., T.C.D., Surgeon Captain, Medical Staff, Station Hospital, Limerick.

Sharpe, A., M.D., M.Ch., L.M., R.C.P.I., D Ph., R.C.S.I., care of Holt & Co., Whitehall Place, London.

Whittindale, J. G., Medical Officer, Brass River District, Oil Rivers Protectorate, W.C. Africa.

Wilson, E. M., M.R.C.S., L.R.C.P., Surgeon Captain, A.M.S., Gilston-road, South Kensington, London.

THE LANCET.

LONDON: SATURDAY, JANUARY 7, 1893.

WHEN commencing our first volume for 1892 we reminded our readers that THE LANCET then entered upon the seventieth year of its career, in which confession it might seem to be implied that at the present date the part which we aspire to play must be so well defined that, save for the purpose of private and personal improvement, there could be no object in our reviewing it. But upon the view which we have always taken of our relation to our readers that is not the case. We do not write merely to be read but also for the purpose of giving expression to the feeling of the great profession which we represent upon the various questions which from time to time it is our duty to discuss and of putting that expression of feeling upon record. In such a task the whole profession is concerned with us and therefore it is fitting that we should from time to time submit to our professional brethren an account of the way in which our work has been discharged. That their interest in this work is both real and keen is abundantly evidenced not only by the continued growth of our subscription list but also by the contents of our "Correspondence" columns, which are remarkable not more for the variety of the topics therein treated of than for the number of correspondents who contribute and the extent of their communications. This, which is a feature of THE LANCET upon which the Editors put the very highest value, is, moreover, a feature which in recent years has undergone a great development. A reference to one of our past volumes, though of recent date, will make good this assertion. For example, in 1889 the "Correspondence" columns occupied 130 pages; whereas last year they extended to 267 pages. It is hardly necessary to add that in such a mass of correspondence no single topic of interest to the profession was lost sight of, and it would hardly be too much to allege that every phase of opinion held upon debated subjects of this order found some fitting expression.

It is not in this branch only of our work that the growth of the past year has been marked. Indeed, it is interesting to note how in various branches the volume of our work expands by a sort of natural growth, corresponding in this respect to the development of the studies with which our profession is identified. If a sufficiently long period of time—say, a decade or the quarter of a century—is passed in review, it is easy to discern that events are marching in ordered sequence and with a rapid step. But like the travel of the shadow on the dial the movement is in general too imperceptible for direct observation. Epochs or epoch-making events must be used as dividing lines to mark the hours and register the movement if this is to be made sensible and amenable to observation. So everybody is able to discern the growth by which our art becomes more precise and our science more profound. But in a more subtle way this process may be traced in the increase registered from year to year in the various departments of our work. Every new view of the old facts brings some new facts into light and every new fact registered leads sooner or later to the enlargement of our theoretical comprehension of both old and new. Thus on both sides the field of our labour is ever increasing and this growth is most graphically shown by the increased demands which year by year are made upon our space. Under this view the following statistics of our publication during 1892 will be of interest. During 1892 one number extended to 216 pages, one to 200 pages, one to 168, two to 152, nine to 144, twenty-five to 136 and twelve to 128 pages. Only in one issue was the theoretical limit of 120 observed. Altogether the two volumes of THE LANCET for 1892 contain 7392 pages, an average of 142 pages for each issue, an increase of five pages per number over the average numbers of 1891. Not only has the work of composing and publishing to be transacted at the office of the paper, but for the more convenient and efficient accomplishment of the work of analysis, of which the results are regularly laid before our readers, a chemical laboratory has been fitted up upon the premises in which this work is carried on.

Turning from these general aspects of our work we may allude briefly to some special departments in which noteworthy results have to be recorded. And here we must devote a line to the mention of the Metropolitan Hospital Sunday Fund collection which has always engaged the special interest of our readers. That interest received an eminently practical expression when in 1891 in response to an appeal made in these columns the medical practitioners of London circulated among their patients some forty thousand copies of the special Supplement of THE LANCET prepared and issued in support of that collection. A similar suggestion elicited a like response from our readers last year, and we doubt not that the personal interest which they have thus shown has had a very substantial effect upon the success of the appeal made to the religious congregations of the metropolis. It is indeed true that we are not able this year as we were last to point to some one munificent gift as having been secured by the agency of THE LANCET Supplement, but that could not be expected. With the aid of our readers and of the various ministers of religion and their coadjutors we were enabled to circulate one hundred and forty thousand copies of the reprinted Supplement; and we are well satisfied that the wide diffusion of a knowledge of the facts of the case thus brought about is precisely what is needed to evoke the practical sympathy of the charitably disposed in support of this most beneficent work.

Another work of charity, smaller in compass but of special interest to medical men, which has been an object of no little solicitude to our readers and ourselves during the past year, is that carried on by the Council of the Royal Medical Benevolent College at Epsom. This most admirable undertaking has long suffered from want of funds and the combination under one roof of an asylum for the old and a seminary for the young—an arrangement which tends not only to overcrowd the available space, but also to hamper the due and efficient performance of the educational work. The excellent results which, in spite of this very serious disadvantage, the teachers engaged there have been able to secure have afforded proof enough that there is in them a capacity for doing good work and accomplishing great things in this department, which merits much more ample recognition than it has yet received, and we have never entered with a more cordial goodwill upon any task than upon

that of assisting in the movement which has been set on foot for improving the accommodation and making a more suitable provision for the pensioners than can be afforded at Epsom. We have not so far secured all the support for which we have hoped from our professional brethen, and it has been found impossible to realise the conditions upon which we as Proprietors of THE LANCET promised a subscription of £1000 towards the fund. In these circumstances the gift has been unconditionally made, and although it would have given much greater satisfaction to be able to announce that the generosity of the public had floated the scheme we are sanguine that that satisfaction is only delayed. Still, it must not be forgotten that in these matters time is all-important. Every year that slips by while the conditions of work at the school remain unimproved means so much time actually lost to useful work. In this, as in so many other instances, it is eminently true that *bis dat, qui cito dat.*

We trust we may not be considered egotistical if we point out that from the date of its foundation, on October 5th, 1823, to our present issue of Jan. 7th, 1893, THE LANCET has been uninterruptedly under the actual editorial direction of members of the family of its founder, THOMAS WAKLEY, M.P. He, after many years' active work as Editor, was succeeded by his son, JAMES G. WAKLEY, M.D., since whose death in 1886 THE LANCET has been conducted by the present Editors, THOMAS WAKLEY, F.R.C.S. Eng., and THOMAS WAKLEY, jun., L.R.C.P. Lond., son and grandson respectively of its founder, who devote themselves exclusively to this work and do not permit themselves to become concerned in any professional engagements or business relations that might possibly render them less able to deal disinterestedly with the various matters which from time to time come before them in their capacity as Editors of THE LANCET.

The year upon which we have now entered will bring its own tasks and its own enlargements of the tasks with which in previous years we have grown familiar. We are sanguine of being able to meet them as they arrive chiefly because we are confident that never before has the support of the medical profession been extended more ungrudgingly to us and the interests to which our efforts are devoted, than at the present time. It needs no great discernment to foresee that in this year 1893 knowledge will be increased and the interchange of views and opinions will be promoted in an even more than usual degree. It is not impossible that grave anxieties may lie in wait for us, for a recrudescence of the cholera epidemic of 1892 could hardly have less than very serious consequences in 1893, and he would indeed be a sanguine man who would count with any confidence upon a total escape of the civilised world from such a mishap. But be that as it may, we have at least this firm ground of satisfaction in looking forward into the uncertain and impenetrable future. We know that it will be our privilege to represent a profession which will acquit itself worthily. An unbroken past justifies us in saying that, whether the lot of the medical practitioner be cast in times of public quiet and prosperity or in times of disease and stress and storm, he will be found exhibiting qualities worthy of his calling and his post. At leisure he will be found diligently prosecuting those researches which lie at the foundation of his arts—in the place of danger and in the hour of distress he will be found administering needed help with self-forgetful devotion to a nobly conceived duty, and in either case he will humbly but not unworthily fill the office to which he has been called—an office than which none is more fitted to awaken and satisfy a generous ambition among all the varieties of human duty.

IN our issue of July 2nd, 1892, we published a leading article referring to a commission which we had appointed to elucidate the occurrence and phenomena of malarial fever in Africa. At the same time we issued a schedule of questions which we hoped would be widely answered, as we sent them to many hundreds of practitioners who had been or who were practising in various parts of Africa. Accompanying the schedule, in most cases, a special letter was sent, calling attention to our endeavours to clear up as far as possible the difficult points which still surround this subject and asking our correspondents to do their best to aid us in an inquiry which we believed would be of the greatest use, not only to our colleagues who are bearing the burden and heat of the day in distant lands, but also to their patients and indeed to mankind in general. When so much has been done to investigate and elucidate the etiology of phthisis and cholera, it certainly seems remarkable that the medical officers of our army and navy, as well as the useful and too often ignored colonial officials, should not be able to do more than they have done in the past to clear up the etiology of a disease which above all others has been the bane of tropical life.

Notwithstanding all the letters and communications which we have received upon the subject during the past few years the response to our present inquiries has not come up to our anticipations. Up to the present date only twenty-four gentlemen have been kind enough to meet our desires by answering the detailed queries which we addressed to so large a number. It is quite possible that the distance of so many of our colleagues from the ordinary postal communication explains this fact, but of one thing we are sure—that the answers we have received have more than justified our wish to investigate the subject of malaria in Africa. They have already shown that up to the present time the various observers have been very far from agreeing in their estimate as to the essential nature of malaria. Some, indeed, of our correspondents seem to think that malarial disease does not even exist; others that what is termed "malaria" is only another name for chill; and others, that the disease in question is only a peculiar derangement of the so-called heat-regulating centre.

We do not wish in any way to forestall the outcome of our inquiry, which will prove, we are sure, of considerable interest. We would, however, again ask as many of our correspondents as possible to answer the questions which we have addressed to them. They have been able, no doubt, to form some opinion on the matter and, as we have taken considerable trouble to specify the various points upon which there appears to be most diversity of opinion, we hope that many will make a special effort to send us their observations in regard to them.

A glance at the reports which have been received shows how important it is for widespread information to be gathered before there can be any hope of ultimate

agreement on the subject. Take, for instance, one point: one-half of our correspondents, in reply to our query about rigors, say that they do not occur in malarial fever; the other half say that they form an invariable symptom of the disease. Again, most of the observers have apparently been unable to ascertain anything regarding the condition of the blood or of the urine in patients suffering from malaria, and for want of definite facts in regard to these two points we are, of course, unable to come to any conclusion about them or to collate them with LAVERAN'S and other researches. With respect to the so-called Blackwater fever in Africa, what are we to hold as a correct view? We have heard of Blackwater fever in America and in various other parts of the world, but when we come to investigate and analyse the reports of it in West Africa we are bound to confess our inability to form any definite opinion on the subject. The difficulty we experience, moreover, in estimating the value of conflicting opinions is that we have no detailed results of any examination of the blood or urine.

Thirty or forty years ago it used to be dogmatically held that some forms of yellow fever might be considered as only varieties of malarial fever. How can this, however, be reconciled with the investigations which have recently been made into the subject of yellow fever by FREIRE of Rio and others? We want our correspondents to try, so far as they are able, to contrast the differences between yellow fever and severe forms of malarial fever, and also to estimate the relations, if any, which exist between enteric fever and malarial fever. We cannot help thinking also that, notwithstanding the heat and discomfort of a residence in Africa, it is possible to make more careful and detailed investigations than have hitherto been undertaken as to the condition of the urine and other excreta of patients suffering from these diseases.

THE more we think of the new departure in diploma-granting contemplated—for it is as yet, we believe, only contemplated—by the University of Edinburgh the more are we convinced that it needs to be very much criticised. If there is one thing of which authorities on medical education are convinced it is that examinations are becoming a great evil. No doubt to a certain extent they are a necessary evil, but nevertheless they are in themselves a very serious evil. To propose five brand-new examinations is an astonishing proposal. For it must be understood that these are not to supersede any existing examinations. The unfortunate graduate who has been under the delusion that in taking the degrees of a great University he was doing something extra—something above what was required by the mere licensing bodies—is to learn that his degrees are "lower degrees" that have been obtained by mere "elementary training"—that the real distinctions are now to begin by acquiring from one to five diplomas, which are to put his degrees into the shade, each to occupy at least one special year of study and to be the subject of a special examination.

No matter how a student may distinguish himself in his classes during the ordinary curriculum and in the examinations for the existing degrees, honours are not to accrue to him as they have hitherto done. "Honours" are to be reserved for those taking the ulterior courses and examinations required for the fantastic process of specialisation, who are also to be rewarded with a diploma guaranteeing them to be precocious rhinologists, cardiologists, nephrologists, gynæcologists and hallucologists!

These proposals are a long step towards the fulfilment of that prophecy of Dr. HERON WATSON that ere long the process of medical education and qualification will bring the student up to the ripe age of forty years. There may be worldly wisdom in such proposals from the University standpoint, but from the standpoint of the student—of his health and his fitness for the practical work of his profession—we very much question the wisdom of prolonging his stay in Edinburgh, where the clinical field—of prime importance in respect of special medical work—is notoriously inadequate for even the existing number of its students.

So far as we are able to divine the motives for this new departure, they will be found in a belief that it will add to the attractions of Edinburgh as a medical school and enable it the better to compete with London as a school of practical and clinical teaching. Edinburgh is a great school, a great centre of medical education, and nothing but grievous errors of judgment and taste on the part of her leading teachers are likely to alter that fact. But surely she is in some danger of falling into such errors at the present moment and in this new movement; for what does the very statement of it involve? First, it involves a disparagement of her degrees—they are to be eclipsed by her diplomas—a reversal of all academic conceptions of the respective value of degrees and diplomas. Her graduates cannot but resent such distinctions, and her detractors will be ready to point the finger of disparagement at her degrees and will be able to quote in justification the language of her own professors. The prestige of the University of Edinburgh is enough to sustain her for centuries yet to come in the first rank of medical schools if she will but recognise the limitations of her field, especially of her clinical field, and sustain above all things the high character of her proper medical degrees. Surely the more unprejudiced of those interested in the welfare of the Edinburgh school must see that by promoting this scheme of special diplomas Edinburgh is only likely to demonstrate her weakest point. They must see that if specialisation in diplomas is to be accepted it will not stop at Edinburgh, or at the other Scottish Universities to which the new medical ordinance of the Commissioners applies equally as to Edinburgh. London and Manchester will be able to assert a still stronger claim to be schools of specialism. So long as Edinburgh holds high the standard of her graduation and can honestly show that it is higher than the standard of the corporations she is on strong and dignified ground. When she attempts to take the initiative in creating a race of pretentious specialists that can have had but little practical experience she immediately descends to vulgar ground on which she can easily be beaten. We have nothing but pleasure in seeing schools competing to give to their pupils the greatest amount of special and valuable teaching in practical subjects, and we are well aware that Edinburgh contains a number of able and accomplished teachers, intra-mural and extra-mural, far beyond her mere professoriate, who are eager to find a proper recognition and emolument in connexion with the large number of students that still flock to her school. Such men ought to find ample function and recognition with the

existing numbers, which, however, are said to show some falling off in consequence of the greater care and attention given in England of late years to practical teaching. By all means let the Scottish schools develop their practical side to its utmost and curtail their systematic lectures; and let her younger teachers who devote themselves to practical and clinical classes share in the dignity and the profit of University work. What we object to is the multiplication of examinations and diplomas with the admitted purpose of multiplying specialties instead of raising the standard of the existing degrees. Edinburgh will be judged by her graduates and not by her specialists, and her best friends will sincerely rejoice to hear that she hesitates to set the example to other examining bodies of a most doubtful new departure.

We have said nothing as to the registrability of such diplomas. The ordinance may receive the sanction of the Privy Council, which we believe to be necessary for all such ordinances. But we do not understand that they will have any claim to be registered under the Medical Acts in the sense in which sanitary diplomas were made registrable by the Act of 1858. The promoters of this most doubtful scheme have not yet submitted it to the judgment of the Medical Council. If we appear to speak severely on this subject it is from no want of interest in the University of Edinburgh—a University which has numbered amongst its graduates the names of WATSON, of WALSHE, of MURCHISON, of STOKES and CORRIGAN and GRAVES, as of ALISON and SYME and CHRISTISON—but for the very opposite reason—our desire to see the leading University of Scotland maintain her high and her deserved reputation.

WE commented in a recent issue on a request which had been made by the chairman of the Cornwall County Council to be supplied by the various local medical officers of health, on special forms compiled by the county council, with a number of data relating to vital statistics and general sanitary administration, and we expressed the opinion that if the county council desired information of this sort they ought, in the first instance, to appoint a county health officer. We now find that somewhat similar requests are being made by other county councils, who, whilst they do not hesitate to make demands for information which can be neither properly compiled nor properly utilised without medical judgment, send out notices as to their requirements without any offer of a fee for services rendered and without having any official means of putting the information in question to its proper uses. At Paignton in Devonshire the information has been distinctly refused by the local board, and the time has come when some general action should be decided upon, in view of the attitude adopted by some county councils.

Under the Local Government Act and the Orders of the Local Government Board the local medical officer of health is required to give to the county council or county councils of the county or counties within which his district is situated the same information as he gives to the Local Government Board with regard to any outbreak of infectious disease and to transmit to them copies of his annual report and of all special reports. We need hardly remind our readers that at the Local Government Board all such information and reports are submitted to the judgment of a skilled medical staff, and since the Local Government Act provided for the appointment by county councils of a medical adviser it may naturally be assumed that it was the intention of the Legislature that these bodies should act in this respect in the same way as the central authority. But the reverse is the case; and a number of county councils, forgetting that it has been held necessary that the public health affairs of each constituent district should be carried out under the guidance of a local medical officer of health, fancy themselves competent without any such corresponding officer to deal comprehensively with the health and sanitary administration of whole counties; and, further, finding themselves in some difficulty because they have no medical adviser, they, in the first place, seek to obtain a great deal of information in excess of that which even the central authority deem necessary, and they then proceed to ask the local health officers to give them for this purpose their gratuitous services. Had they asked the clerks to the various sanitary authorities to compile the desired returns on the same terms the scheme would speedily have collapsed; but medical men have, in dealing with individual cases of health, been so liberal in giving gratuitous advice and services that even authorities having all the public rates from which to draw do not hesitate to ask for similar gratuitous help when public questions are involved.

The Devon County Council have even discussed the question of reporting the Paignton Local Board to Whitehall as a "defaulter," but the proposal was wisely dropped. Other county councils have made certain representations as to default to the central authority, but we believe we are right in stating that the Local Government Board have never sent one of their own inspectors to investigate the question of default, except in regard to counties for which a medical officer of health had been appointed—that is to say, in cases in which the complaint of the council as to local default in protecting the public health was presumably based on proper medical judgment.

For the present it seems to us that local health officers are entitled to remember that their services belong only by right to the bodies by which they are appointed, and that, except where they desire to assist a colleague who holds the post of county health officer, they should supply to county councils no other information than that required under statute or official order, except on payment for their services, and even then only after having obtained the sanction of their authorities. Some local authorities have felt that the attempt to secure information through their health officer has amounted to an attempt to place that officer in the position of a complainant against the body whom he professedly serves, and they have warned him accordingly. One other point deserves to be borne in mind. Medical members of county councils will, we feel sure, not give such services to their councils as will go to uphold those bodies in their attitude of refusing to appoint a county health officer, and the existence of a medical practitioner, whether retired or not, on a county council should not be regarded as a reason for supplying any such council with information beyond that which it is the duty of a health officer to submit to the county authority.

WHEN a star of chivalry—a GODFREY or a DUGUESCLIN—rode into the lists to fight for his ideal of all that was fair

and pure and honourable he bore on his shield a device by which, even with visor down, he could be recognised by the spectators. The choice of such an emblem with its companion motto was one of great importance and came to distinguish its bearer not only in tournament but in stricken field. "The old order," indeed, "changeth," but this especial custom clings to the knight-errantry of the modern day—the knight-errantry that in the arena of journalism does battle for freedom and reform, for the suppression of the impure and the vindication of the salutary and the good. Instances of a happy choice of emblem or rubric by the leaders of the public press will at once rise to the mind, and we may be excused if, after the attainment of our "threescore years and ten," we revert for a moment to the name of THE LANCET. It was the chosen appellation and device of a medical journal started to combat jobbery, with its "bloated armaments" (to borrow Lord BEACONSFIELD'S phrase), the professional "close boroughs" and all their attendant nepotism, corruption and inefficiency. Plethoric corporations, which had battened on the unrecognised and unrequited work of generations of sound and self-denying public servants, demanded a treatment with alteratives the efficacy of which had to be ensured by local and periodical depletion. That the therapeutics in question were sagaciously conceived and effectively carried out is now matter of history, which has put on undying record the name of its practitioner as well as that of the instrument with which he practised. The physician or surgeon of the present day, brought up under the free and openly competitive system for which THE LANCET lived and laboured, requires some effort of imagination to realise the "close-time" of seventy years since—metaphorically speaking, he must "see these roads before they were made," to appreciate the tunnelling, the blasting, the levelling up and the levelling down, begun and completed to construct the highway over which he is now wafted in his sleep. Nor was it in the British Isles alone that the work of THE LANCET was conspicuous. Imitation—that sincerest form of flattery—followed its lead in continental Europe and even in the new world; and to combat a similar state of professional torpor and corruption many journals, borrowing the name and the style, if not the skill, of the parent, arose throughout Christendom. Our correspondents at the central European schools might usefully make a survey of the history of their medical journalism and show how many a capable and well-inspired organ adopted the title and the methods and achieved something like the reforms of its London progenitor. Let one instance suffice. Fifty years ago Holland took a mighty lead in physiological and pathological research chiefly under the auspices of the great GERARD JOHN MULLER and his disciples. To further the reforms it had promoted in doctrine and in teaching his school started a special organ and the name assumed for it was the *Nederlandischer Lancet*. Under DONDERS (the great ophthalmologist) and his hardly less able compeers, ELLERMAN and JANSEN, the journal rose to fill something like the place occupied by its London namesake, insomuch that in 1847, at the memorable first meeting of VIRCHOW and MOLESCHOTT, the young German pathologist told the young Dutch physician that the *Nederlandischer Lancet* aroused his admiration and enthusiasm. To this Netherlands copy of a British original the surgery and medicine of Teutonic Europe owed a revival—so true it is that the initiation of nobly inspired reforms is not only a good in itself, but a cause of good in others. Indeed, THE LANCET'S true monument is "Circumspice"—an all-round comparison of the professional status and standards of to-day as contrasted with those of "seventy years since"; and it is a monument in which (whatever the inevitable streaks in the marble) its founder would have taken pride for its realisation of all he held most dear.

Annotations.

"Ne quid nimis."

PREPARING FOR THE INTERNATIONAL MEDICAL CONGRESS.

ONE of the great medical events of the year now opening will be the International Congress of Medicine and Surgery to be held in Rome on Sept. 24th-30th. Committees, Italian and oreign, have worked effectively with the central "Comitato Organizzatore" for the elaboration of its programme and for the convenience and comfort of its participants, but it is in Rome itself that, naturally and properly, the greatest activity still prevails. Not only is the Policlinico in whose magnificent halls the sittings will take place still far from completion, but the other hospitals throughout the city require ameliorations neither few nor small to fit them for the scrutiny of the medical world from such centres of civilisation as London, New York, Paris, Vienna and Berlin. Of this no one is more sensible than the President of the Congress, Dr. Baccelli, himself. One of the very busiest men in Christendom, he has assumed an extra burden of thought and care in view of the "march past" of Italian medicine before the critical eyes of Europe and America, and no effort is being spared on his part to make every arm of that "service" appear as capable and effective as possible. Meanwhile the physicians and surgeons of other nationalities who intend to assist on the occasion have also their special duties to perform. One of these is that of fitting themselves as far as they find it practicable for the part they have to play not only as audience but even as protagonists. More than one British consultant and academic teacher—a yet larger number, we believe, from Germany—are prepared to read papers and contribute to the discussions in the language of Italy, and we cordially congratulate them on their having so qualified themselves. The accomplishment, we are quite sure, will be found to be much more common among our representatives than is generally admitted—a "working knowledge" of Italian, by which is meant ability to read or even write it, being far more widely diffused among the profession than its censors think. This knowledge has only to be carried a step further—has only to call in the aid of the "parlatore" to become available for conversation or spoken discussion. To such as have still that "working knowledge" to acquire there are various avenues to it possible. One is the time-honoured recourse to grammar and dictionary, followed by the perusal of a standard author—a method by no means unpleasant when pursued with such a beautifully scientific manual as Dr. Demattio's "Grammatica Italiana," Innspruck, 1875, combined with such an excellent "Vocabolario" as Fanfani's (Florence, 1891) and applied, let us say, to a comedy of Goldoni. Another and much more expeditious way is that recommended by our own Milton and Locke—to wit, comparing a good English translation of an Italian work with the

original on the opposite page. It is astonishing how soon a little perseverance in this practice enables the reader to break through the crust of a foreign tongue and acquire idiom and vocabulary enough to dispense with the translation and make his way through the original text. After this, to perfect his knowledge with a grammar is an affair of "leaps and bounds." There need be no difficulty in selecting a book in Italian, rich as the language is in translations of standard English medical works, to which the reader will come already more than half prepared. The Neapolitan school has signalised itself by its wealth of English medical literature transferred to Italian, any volume of which, begun by the British student on the method we have indicated, might form an easy and effective introduction to the language. Here too the much-maligned "Latin fetish" intervenes as a positive "Deus ex machinâ" and proves to its erewhile unwilling votary a blessing in disguise. That the course we have recommended is practicable even for the busy teacher or consultant Lord Dufferin has shown in his memorable discourse to the St. Andrews' students in April, 1891. That, abroad at least, it is constantly pursued is seen in the autobiographical allusions of such men as Donders and Moleschott in medicine and Prince Bismarck in diplomacy. Once acquired, the language need not be dropped, but may be used in intercourse, scientific and social; ay, even in consultation with the foreign physician at one or other of the many Mediterranean or Alpine health resorts. Even for its own sake, as Mr. Gladstone reminded us the other day, Italian is a precious acquisition. "I will contend with you from morn till dewy eve," said the right honourable gentleman to the late Sir William Gregory, who was urging the superior claims of German, "that Italian does more for the mind." To this contention our own profession can supply auxiliaries, even from the medical commentators and interpreters of Dante himself. But, not to digress further and to return to our theme, there can be no doubt that those who assist at the next great parliament of the healing art will have special reason to congratulate themselves on whatever acquaintance they may have cultivated with the *genius loci* and its language.

OUR HOMELESS AND NOMADIC POOR.

THERE are three groups of the above—the first typified by the vagrant, the second by the huckster, the third by the gipsy. The vagrant is absolutely homeless, leading an "any-port-in-a-storm" life, and as the day closes "making a bee-line" for the casual ward. The huckster practises as a Jack-of-all-trades, but posing as a specialist in the most lucrative one goes about in the van which is his home. The gipsy is the nomad, "pure" if not "simple," living in tents or bivouacking in sheltered nooks or under the brushwood of commons or moors. Numerical division of these groups is not easy, but the extent to which their mode of life creates varieties of disease or favours diffusion of the same admits of a readier answer. The vagrant whose native imbecility or inveterate indolence makes of life one "long strike" is seldom the prey to acute disease. He is short-lived and becomes prematurely old, but, in spite of the precarious conditions he "enjoys," he is generally exempt from epidemic or zymotic affections and particularly free from phthisical and such-like ailments. But does he spread contagion? At first sight he seems specially qualified for this *rôle*. He travels up and down the country, he is uncleanly in his habits, he often wears the cast-off raiment of infected people, he not seldom herds together with others under a common roof. With all this he is not a disseminator of disease—not certainly in the sense in which school children are. The huckster in all the above] respects exhibits a marked contrast to the vagrant. Epidemic ailments are frequently his portion. His children are often scrofulous, feeble and radically unhealthy, the adults especially being victims to "the most fatal of all English diseases—consumption." Dr. B. W. Richardson (to whose masterly memoir on the subject we owe much information), when physician to the Royal Infirmary for Diseases of the Chest, treated in the course of a few years nine phthisical patients all from one travelling van. Other thoracic diseases—asthma, bronchitis, cardiac affections—prevail among the huckster group, a prevalence which the same shrewd observer associates with their generally intemperate habits. The gipsies, finally, are "constitutionally a very healthy race"—more exempt from the fatal diseases that thin the community than any other class. This exemption, says Dr. Richardson, whose knowledge of them and their ways is perhaps unique, is coincident with their retaining "their original nomadic mode of life." Once let them mix and live with the people generally and they suffer like their neighbours. Their most common enemy in the outdoor life they lead is rheumatism. Of an epidemic of variola among gipsies Dr. Richardson has never heard, nor has he seen one of them pitted with small-pox. In 1851 there was a severe outbreak of scarlet fever at Barnes, near which place he was practising, and at the same time and place there was a populous gipsy camp, but among their numerous children there was not a single case. One element in their favour seems to be their temperance, which also explains the considerable longevity which they reach. Their lives and characteristics, from a hygienic point of view, confirm the induction that "as soon as men begin to aggregate in close localities without due and proper sanitation and with too great a command of 'creature comforts' they contrast indifferently with their seemingly less favoured brethren who are content to confront nature in her wildest moods."

THE LANCET RELIEF FUND.

THE fourth annual report of the Almoners of this Fund, which appears in another part of our present impression, affords, we venture to think, most gratifying evidence of timely help extended to recipients for whom it would be impossible not to feel in any case the very warmest sympathy. The interesting selections of extracts which they publish, from letters received by them, will give some idea of the various and pressing nature of the necessities to which they have ministered. The considerable number of the applications received on behalf of persons to whom no assistance could under the rules of the Fund be given is proof that the objects which it is intended to serve are still imperfectly understood. These objects are restated fully and clearly in the report, but it may be as well to mention here that, shortly and without any attempt at precision, it may be said that the cases with which the Almoners can deal are those, and those only, in which a pressing and temporary need has arisen which can be effectively met by the grant, as gift or loan, of a small sum of money, it being of course understood that the benefit is restricted to registrable medical practitioners and persons legitimately dependent upon such. No rigid limit has been placed upon the amount of the grant, but the present financial statement exhibits what is, we believe, the largest sum ever yet allotted to a single case, the amount being £50 granted by way of loan. It is another distinguishing feature of the present report that the sum provided for the service of the Fund during the year has been slightly exceeded, the expenditure being £304, whereas the income is £300. It is, however, very satisfactory to find that the means in this way provided for dealing with a particular class of calamity have been so closely approximated to the necessity provided against, as this statement shows. We desire to take the present opportunity of

expressing our thanks to the Presidents of the Royal College of Physicians of London, the Royal College of Surgeons of England and the General Medical Council respectively for their courtesy and kindness in devoting considerable time and trouble to the administration of the Fund. Forms of Application to the Almoners of the Fund will be printed in our next issue.

THE PREVALENCE OF SMALL-POX.

SMALL-POX still continues to spread, but with the exception of Manchester, where there are now seventy cases, the attacks in any one town or district are not numerous. The number of attacks in certain given places during the past week was ten at Chadderton, six at Wakefield, six at Liverpool, eight at Southampton, five at Halifax, four at Barnsley, and three at Sheffield. Amongst other places attacked are Batley, Bradford, Brighouse, Derby, Dewsbury, Doncaster, Durham, Newcastle, Huddersfield, Keighley, Leicester, Rotherham, South Normanton, Norwich, Runcorn, Sunderland, West Hartlepool and Warley. In several instances, as for example in Norwich, Newcastle, Doncaster and Durham, the disease has found access to the workhouses; and in a number of instances where hospital provision has long been delayed hurried arrangements are being made for some improvised schemes. At the end of the year there were thirty-one small-pox patients under isolation by the Metropolitan Asylums Board. Small-pox has now been steadily maintained since last September, and not only does the number of places attacked tend to increase, but the number of persons notified to be suffering from the disease is also on the increase. Notification returns are only available for a limited number of towns, but where they are available they show that a larger number of people were last week suffering from small-pox than at any time during the present prevalence except in one single week—viz., when the Warrington epidemic was at its highest.

THE NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.

UNDER this title a Society is being formed which will have for its object the provision of occupation for epileptics who are capable of work, but debarred from finding employment by reason of their affliction. A movement in this direction was commenced a few years ago in connexion with the Charity Organisation Society, when Miss Nina Paget read a paper on the subject, but the matter was not then actively pursued. Early last year, however, the subject was again taken up (with the active sympathy of the Charity Organisation Society) by the late Lady Taunton and by Miss Burdon-Sanderson, sister of the well-known professor of physiology at Oxford. The urgent need of provision being made in this direction had long forced itself upon the attention of these ladies, as a result of their experience in visiting the wards of the National Hospital in Queen-square. They were continually meeting with cases showing the cruel hardship inflicted upon numbers of willing and capable men and women by the nature of the disease under which they were labouring. The committee now engaged in taking the initiatory steps in the formation of a Society which certainly deserves, and we have no doubt will obtain, very widespread support, includes the names of Lieutenant-Colonel Montefiore, Dr. Buzzard, Dr. Ferrier, Dr. Howard Tooth, Prebendary Harry Jones, Messrs. Pearman and Micholls, and several ladies. An office has been established at 20, Hanover-square, where Dr. Low, Secretary of the Society *pro tem.*, attends daily from 3 to 4 o'clock. Miss Burdon-Sanderson is honorary secretary; her address is Branksome, Fitzjohn's-avenue, N.W. The Lord Mayor has kindly granted permission for a public meeting in support of the National Society for the Employment of Epileptics to be held at the Mansion House on Wednesday, Jan. 25th. On this occasion it is expected that the objects of the Society will be explained and advocated by the Lord Chancellor, Sir Andrew Clark, Sir Walter Foster, M.P., Mr. Haldane, Q.C., Sir James Crichton-Browne and others. The subject is exciting great interest and a full attendance at the Mansion House may be looked for. The Society proposes to start in England (not many miles from London) a colony of epileptics who will find congenial occupation adapted to their varying capacities. The advantages of the colony will be obtainable by payment, the rate of which will be generally very moderate, but it is intended in process of time to make provision also for members of a higher class, whose contributions would be a valuable help towards the very large expense necessarily attendant upon the working of a colony of this description.

NEW YEAR'S HONOURS.

WHILE we gladly congratulate Sir Anthony Colling Brownless, the Chancellor of the University of Melbourne, on his promotion, we are compelled to express our regret that there is no indication in the honours list of the national gratitude for the successfully combated invasion of the dire plague which has decimated many towns of Asia and Russia, and notably a great seaport of Europe, and which effected a footing, but, happily, no more than a footing, in our own country. We confess that some more conspicuous evidence of Royal, that is National, recognition of the profession whose duty and honour it is to face the dangers of combat with the King of Terrors, whatever his method of attack, would have been hailed by us with pleasure. Were we cynically inclined we could recall that wisdom of our folklore which notes the sanctifying influence of adversity and the tendency for saintliness to disappear on the disappearance of danger.

THE BREAK-DOWN OF THE "UMBRIA."

THE mishap which overtook the *Umbria* in mid-Atlantic and occasioned widespread alarm both here and in America, though now happily passed, has emphasised the serious peril which is involved in trusting to the capabilities of a single propeller however excellently constructed and skilfully worked. A break-down must occasionally happen whatever measures may have been taken to prevent it and then if no provision has been made for efficiently navigating the disabled ship an emergency arises which is most painful to contemplate. In some of the best ships afloat the propeller consists of twin screws, and if one should become incapacitated the other can still be relied upon with no worse result than some small delay. We believe that we are correct in stating that upon one of the voyages which the *City of New York* made last year one of her screws became disabled, but the ship, instead of becoming unmanageable, was propelled by the uninjured screw alone at a rate of seventeen knots an hour. If this be correct, surely no sea-going steamer should be built without this most necessary equipment of duplicated propelling machinery.

ABUSE OF HOSPITALS ABROAD.

THAT this is not the only country where hospitals intended for the poor are made use of by the well-to-do is shown by a report which has been laid before the Paris Municipal Council by the Seine Medical Association, which collected various facts relating to the abuse of the Paris hospitals. On interviewing the officials of the Assistance Publique the representative of the *Temps* was assured that precautions are taken which necessarily render such abuses exceedingly rare. It was explained that though every patient whose case is grave is admitted to the hospital, inquiries are made by the administrative agents. If any are found not to be in

necessitous circumstances and it is impossible to remove them, they are obliged to pay during the time of their residence in the hospital; if it is possible to remove them it is suggested to them that they should return home to be treated and leave room for those who are necessitous. The number of paying patients is limited. As regards out-patients, all applicants are admitted whose general appearance indicates that they are not well off, but they do not receive gratuitous medicine except in the special hospitals. In Belgium, according to *Le Scalpel*, it is quite a frequent occurrence for well-to-do people to come in their carriages from the country to the hospitals and to obtain not only advice but medicine gratuitously, thus injuring both the medical practitioners and the druggists.

THE RIGHT HON. THOMAS HENRY HUXLEY.

IN our notice of the honours conferred last year on members of the medical profession we inadvertently omitted the fact of the admission of Mr. Huxley to the Privy Council. The Privy Council has not the same powers which it once had in English history, but it is still a body charged with certain important duties, administrative and judicial. The Medical Acts, the Dentists Act, the Pharmacy Act, the Destructive Insects Act, the Contagious Diseases (Animals) Act, the Veterinary Act—all involve the action in certain contingencies of the Privy Council. The Council has important duties in reference to the Universities and to elementary education. The addition of Mr. Huxley to such a body is an obvious advantage, for which the public will be grateful to Lord Salisbury. It is besides a proper compliment to one who takes a deep interest in education from its most elementary to its most advanced forms and who in many respects is the most conspicuous and courageous scientific man of the country.

DIPHTHERIA AND BOARD SCHOOLS.

THE interesting inquiry into the sanitary condition of the Yerbury Road School was resumed last Friday. The case for the defence was that, though the drains of the school were not absolutely perfect and were not free from some slight oozing when the water test was applied, yet that they were practically sound and sufficient. The pipes were laid in stiff clay and there was no possibility of any noxious gas escaping through any defective joint into the school. Dr. Smith on two occasions made an investigation into the state of the school and on both came to the conclusion that it was unnecessary to close the school. He had been in close consultation with Dr. Tidy, who pointed out that diphtheria was prevalent throughout a large area of the parish. The pipes were laid at a gradient of 1 in 400 feet for only a part of the distance—viz., 37 feet. He admitted in cross-examination that some of the pipes leaked and that personally he would never have passed a drain that was laid in varying gradients. The interest of the case now rests in the visit of the magistrate to see the drains and in his judgment, which will be delivered on Friday, the 6th inst.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following are the lecture arrangements at the Royal College of Surgeons for the coming year. The first course of lectures will be given in the theatre of the College at 5 P.M. precisely. Professor C. B. Plowright will lecture on the Action of Fungi on the Human Body on Monday, Wednesday and Friday, Feb. 6th, 8th and 10th. Professor H. J. Campbell will give three lectures on Monday, Wednesday and Friday, Feb. 20th, 22nd and 24th, on Intestinal Parasites belonging to the class Nematoda. Professor B. T. Lowne will give three lectures on Monday, Feb. 27th, and Wednesday and Friday, March 1st and 3rd, on the Physiology of the Respiration, Circulation and Nervous System of some Invertebrata. Professor Charles Stewart will lecture on the Physiological Series of Comparative Anatomy in the Museum of the College on March 6th, 8th, 10th, 13th, 15th, 17th, 20th, 22nd and 24th. The second course of lectures, to be also delivered in the theatre of the College at 5 P.M. on Mondays, Wednesdays and Fridays, is as follows: The Physiology of the Kidney, by Dr. J. Rose Bradford (Arris and Gale Lecturer), on May 29th and 31st and June 2nd. The Pathology of Tumours connected with the Bladder, by Mr. J. H. Targett (Erasmus Wilson Lecturer), on June 5th, 7th and 9th. Injuries to the Epiphyses and their Results, by Professor J. Hutchinson, jun., on June 12th, 14th and 16th. The Surgery of the Air Passages and Thorax in Children, by Professor Bernard Pitts, on June 19th, 21st and 23rd.

A MEDICAL CENTENARIAN.

DR. SEVERIN WIELOBYCKI, formerly a Polish refugee and subsequently a naturalised British subject, who has been a resident in St. John's Wood for some twenty-seven years since his retirement from practice, will complete 100 years of life on Jan. 8th. He has had a useful and romantic history and is to be entertained at a centenary reception by the President and Council of the Society for the Study of Inebriety on Jan. 10th, in the rooms of the Medical Society of London. Addresses will be presented from various public bodies and members of the Legislature and of the medical profession taking part in the proceedings.

A VICTIM TO SMALL-POX.

NEWS reaches us to the effect that Mr. William Summers M.P. for Huddersfield, has fallen a victim to malignant small-pox at Allahabad, India. It is painful that men of promise, such as he was, should be thus cut off in the prime of life by one of the most preventable of all diseases affecting man; but it is even more painful when such a calamity is associated with an attitude such as he had taken, and which in itself doubtless stood in the way of his availing himself of a renewal of that protection against small-pox which is afforded by a comparatively recent revaccination. We do not know precisely what views Mr. Summers held on the subject of vaccination, but he was an avowed advocate of the anti-vaccinationists in the House of Commons, and during the past session he put a number of questions to Mr. Ritchie on behalf of that section. His last appeal was on May 12th, when he sought to press the question of legislation adverse to that which now exists as to vaccination. Even if, like some others who ask similar questions, he was not altogether an unbeliever in the power of vaccination to protect against small-pox, his attitude was hardly one which could be regarded as consistent with resort to the only protection which could have availed to save life from this loathsome and formidable disease.

THE SOURCES OF OUR ICE SUPPLY.

THE application of cold has by common consent been accepted as the best method of ensuring the preservation of dead animal or vegetable substances, and ice as the means best adapted to this purpose. In other words, extreme cold is incompatible with putrefactive or other bacterial action. This fact in some degree does away with the necessity for using in order to effect this purpose no ice but such as is itself free from any organic impurity. Only in a measure, however, for it has been repeatedly shown that bacteria, notwithstanding their inaction, can preserve their vitality at very low temperatures, while the alkaloid poisons developed by them are not in any way attenuated as to their virulence by any such variation in surrounding physical conditions. The return of a suitable temperature restores their opportunity, and a morbid process is bound to follow. The necessity of obtaining ice to be employed for meat pre-

servation from as pure a source as possible must not therefore be overlooked. According to recent reports it is liable to be entirely disregarded. One correspondent indeed speaks of ice being procured from a spot which forms the customary grave of dead cats, dogs &c. for the district. It is to be hoped that sanitary authorities wherever they have reason to suspect the occurrence of such a breach of wholesome rule, and indeed of ordinary common sense, will act with energy and repress the dangerous practice.

THE CHARITABLE BEQUESTS OF 1892.

THE *Charity Record*, reviewing the charitable history of 1892, finds that the year has been distinguished by some very liberal bequests for the benefit of the sick, the poor and the aged. We cannot afford space to enumerate these, but the mention of the fact may stimulate others to make 1893 yet more distinguished. Rich men need not wait till they are dead to enrich the poor and to provide the sick with comfortable beds. It will immensely add to their own pleasure while they live to see the actual advantages of their liberality.

INFECTION BY MILK-SUPPLY.

AMONG other possible sources of morbid contamination the dairy must not be forgotten, though we have happily ample reason to congratulate ourselves upon the comparative infrequency with which it has been found guilty of acting as a means of propagating disease. We cannot, however, blink the fact that it has thus acted. Establishments of this class, like any other, are of course liable to suffer from errors of drainage and impure water-supply. Mention has recently been made also of the transference of disease by the milk-can, and it has been suggested that here we have to deal with an imaginary cause of mischief. We would not wantonly question the care ordinarily exercised by dairymen in cleaning their cans, but we are nevertheless unable to deny the possibility of contamination in the manner suggested.

SMALL-POX IN GLASGOW.

THE last two cases which occurred in Glasgow were imported ones and were admitted to Belvidere Hospital on Dec. 24th and 26th respectively. One was a navvy, who appears to have contracted the disease in Edinburgh and was taken ill in a hut on the West Highland Railway tract at Ardlier, by Loch Lomond, in Dumbartonshire. Most of the inmates of the hut accepted revaccination, two had already had small-pox and all are being kept under observation, with the exception of two who had gone on tramp after exposure to risk of infection and who are being searched for by the police. The other case admitted into Belvidere Hospital is believed to have been infected in Manchester.

DANGEROUS DRIVING.

NOT even a cabman, however busy, will dispute the justice of the rule which obliges him to slacken speed at street crossings and points at which lines of traffic meet within a limited area. There is an obvious necessity for such regulation. "Furious driving" anywhere is subject to the same wise restriction. Unfortunately, however, such a term as this is a comparative one, and, as the sequel shows, it is liable to serious misinterpretation. Only the other day a hansom driver was thus briskly traversing Old Broad-street, when in a careless moment the lash of his brandished whip flicked the eye of a pedestrian. The suffering thus occasioned may be imagined. Perhaps there is no form of injury which is, for its size, of more critical purport than an abrasion of the conjunctiva. Treated at once, it will probably do well; neglected or but half-treated, as more commonly happens, its issue as regards the eye itself may be of the most ruinous character. The fact that the injury has been inflicted by a dirty whip-lash will not tend to brighten the prospect of recovery. With such details of practice, however, we are not immediately concerned. Prevention is in this case both needful and feasible, and it is to be hoped that local civic authorities will use every possible means to remove the cause of this danger by moderating within due limits the driving pace allowed in all busy thoroughfares under their control.

TAKING THE OATH WITH UPLIFTED HAND.

AT an inquest held on Dec. 30th at Guy's Hospital Mr. H. E. Durham, the house surgeon, objected to kiss the Bible in use on the score of possible infection and was sworn with uplifted hand. Mr. Fredk. Charles Young, the house physician, who gave evidence in a second inquest, was sworn upon a new Bible. We may again remind medical witnesses that anyone who desires to swear with uplifted hand is not bound to give, nor is anybody at liberty to ask, his reasons for so doing.

THE PROJECTED NEW BOROUGH HOSPITAL FOR LEEDS.

THAT intelligent "self-help" which has done so much for the Anglo-Saxon in the past, whether at home or abroad, finds collective expression in the municipal life of the country. A common danger threatens a community, and like a fortified town of former times the drawbridge is lifted and the walls manned, the danger faced and means adopted for resisting the enemy, without a precipitate appeal to the central government, as in more bureaucratic States. Together with independence, however, the Leeds corporation has coupled intelligence in action. A sanitary committee duly appointed, and accompanied by Dr. Cameron, the medical officer of health, has examined with care similar institutions at Hull, Newcastle, Glasgow, Nottingham and Bradford, before deciding upon the special form which their own hospital is to take. We learn that the committee meanwhile seems to favour a system of numerous pavilions, which experience and scientific considerations alike undoubtedly indicate as the most suitable for the proper isolation and treatment of cases of infectious disease.

THE WEATHER AND PNEUMONIA.

THE effects of various meteorological conditions upon the development of croupous pneumonia are discussed in considerable detail in Dr. P. J. Kolski's graduation thesis in the University of Moscow. He gives statistics of the disease and of the different meteorological conditions in Moscow for many years past, together with elaborate coloured diagrams. He believes that though changes in the weather may not be the main cause of pneumonia, as they were at one time thought to be, still the modern tendency to ascribe everything to bacteria is to be resisted, for, according to his researches and observations, meteorological variations certainly play a not unimportant *rôle* in the etiology of the disease. Generally speaking it may be said that abnormal weather is favourable to the development of pneumonia. The greatest number of cases has been found to occur in Moscow under the following conditions: a temperature lower than usual with very few diurnal variations, abnormally high barometric pressure, a north wind of less than its ordinary force, and a small amount of rain or snow. Dr. Kolski does not agree with Seibert that pneumonia is especially rife when there is an absence of parallelism between the temperature curve and the curve of relative humidity, and he considers that the common opinion that strong winds are favourable to pneumonia has no foundation, for, as a matter of fact, the years when the wind has been high have been the very years during which there has been but little pneumonia.

MICRO-ORGANISMS OF ULCERATIVE ENDOCARDITIS.

A PAPER on the above subject appears in the *Lyon Médicale* of Dec. 18th, 1892. The case upon which the observations were made was that of a girl aged nineteen. The diagnosis was confirmed on post-mortem examination. In order to procure the organisms one of her fingers was carefully cleansed, first with soap-and-water, then with ether and finally with corrosive sublimate solution; a drop of blood was obtained by pricking the finger with a sterilised needle and placed in bouillon. The culture medium was kept at a temperature of 35° C., and rapidly became cloudy. On microscopic examination a diplococcus was found rather larger than the staphylococcus pyogenes. The elements of the diplococcus appeared occasionally to be single, but they never formed in chains or in groups. They did not possess a capsule. The organism stained well with all the aniline dyes and also by the Gram method. It could be cultivated at any temperature between 13° and 14° C. The cultures in bouillon very quickly caused a turbidity in, and gave a well marked yellow tinge to, the liquid. The culture obtained its maximum of growth in about forty-eight hours, but ceased to increase in about seven or eight hours after that time. A copious yellow deposit formed on standing, but the supernatant liquid remained cloudy. Cultures on agar-agar glycerine grew rapidly, and well marked colonies were observed at the end of twenty-four hours at a temperature of 37° C. On the surface of the cultivating medium a very slight white pellicle was noticed with somewhat festooned borders; this appearance extended into the agar-agar. If a culture was made by running the needle deep into the agar-agar, a white streak was produced in the course of the needle, but it presented nothing which could be called characteristic. On gelatine the diplococcus did not grow so well—the gelatine was not liquefied. Occasionally on the surface a pellicle similar to that produced on agar-agar was noticed. In plate cultivations this was shown to consist of minute, opaque, yellowish-white colonies. A rabbit was inoculated with a broth-culture, but no effect was produced. The animal was killed on the tenth day, but no lesions could be detected.

FOREIGN UNIVERSITY INTELLIGENCE.

Florence.—Professor Celso Pellizzari of Pisa has been appointed to the chair of Dermatology and Syphilis in succession to Dr. Pietro Pellizzari, deceased.

Leipsic.—Dr. Spalteholz, formerly assistant to the late Professor Braune, has been raised to the rank of Extraordinary Professor.

Lemberg.—Dr. L. Niemilowicz has been appointed Extraordinary Professor of Pharmacognosis.

Marburg.—Dr. Eugen Korschelt of Berlin has been appointed Professor of Zoology and Director of the Zoological Institute.

Pisa.—Dr. G. Guarnieri has been promoted to the Ordinary Professorship of General Pathology.

Santiago (Chili).—Don F. Puelma Tupper has been appointed Professor of Experimental Physiology; Don Aureliano Oyarzún, Professor of Morbid Anatomy; Don L. Espejo Varas, Professor of Therapeutics and Materia Medica; and Don Francisco Servat, Professor of Organic Chemistry.

Toulouse.—M. André has been appointed Professor of Internal Pathology.

Turin.—Dr. Camillo Negro has been appointed *privat-docent* in Neurology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Bonalumi, Professor of Military Hygiene in the Florence Medical School.—Dr. Reeves Jackson, Professor of Gynecology in the College of Physicians and Surgeons, Chicago.—Dr. Jas. R. Leaming, Professor of Pulmonary Diseases in the New York Policlinic.

THE Royal Academy of Sciences of Turin have announced that the competition for the Bressa Prize, commenced on January, 1891, will extend to December, 1894. As is already known, the prize will be given to the scientific author or inventor, whatever may be his nationality, who during the interval included in the four years mentioned shall have made, in the judgment of the Academy, the most important and useful discovery or published the most valuable work on physical and experimental science, natural history, mathematics, chemistry, physiology and pathology, geology, history, or geography and statistics. The value of the prize is fixed at 10,416 francs. The works must be printed, and the productions of the unsuccessful candidates will be returned to them.

THE following gentlemen have during the last month been selected for enrolment as Honorary Associates of the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England, by the Chapter of the Order, in recognition of valuable and gratuitous services in the cause of ambulance work, and their selection has received the approval of Her Majesty the Queen, the sovereign head and patron of the Order: Frederick Gordon Brown, M.R.C.S. (City of London), Samuel Osborn, F.R.C.S. (London); Geo. Edward Shuttleworth, M.D. (Lancaster); Thomas Coke Squance, M.D. (Sunderland); George Arthur Barr, M.R.C.S. (Newport, Isle of Wight); Professor John Chiene, M.D. (St. Andrews Ambulance Association, Edinburgh).

PROFESSOR NOTHNAGEL of Vienna, the worthy successor of the illustrious Professor Bamberger in the chair of Clinical Medicine, has just intimated to the organising committee of the International Medical Congress that he will contribute a special paper to the agenda of one of the general sittings.

THE Lettsomian lectures will be delivered at the Medical Society of London, Cavendish-square, by John Syer Bristowe, M.D., F.R.S., on Jan. 9th and 23rd and Feb. 6th, 1893, at 8.30 P.M., on the subject of Syphilitic Affections of the Nervous System.

THE General Medical Council has appointed Mr. Rawdon Macnamara to be visitor of the examinations of the English Universities and the medical corporations in Ireland for the current year.

THE MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—On Friday next, Jan. 13th, a general meeting of this Association will be held, at 3.30 P.M., in the rooms of the Medical Society, Chandos-street, Cavendish-square. The President, Dr. W. Howship Dickinson, will occupy the chair, and a paper on the Disinfection and Treatment of Scarlet Fever by Antiseptic Inunction will be read by Mr. J. Brendon Curgenven. The meeting will be open to all medical men who take an interest in the subject of the paper and they will be invited to join in the subsequent discussion.

LITERARY INTELLIGENCE.—A new medical monthly entitled *Annales Médico-Chirurgicales* has just been commenced under the auspices of a Belgian Medical Society, Le Cercle Médical Borain. It is principally devoted to clinical observations made by the members.—Havana (Cuba) has just produced a new monthly—*La Abeja Médica* (the *Medical Bee*). It is edited by Dr. Gustavo López y Garcia. The specimen number which has been sent to us contains, amongst other articles, an illustrated paper on Deformed Skulls of Carribean Indians in Cuba and St. Domingo, by Dr. Sotolongo y Lynch.

THE LANCET
Special Analytical Commission
ON
MINERAL WATER MACHINERY AND METALLIC CONTAMINATION.

IT is well known that a solution of carbonic acid gas in water behaves as a feeble acid, and it has been assumed therefore that true carbonic acid H_2CO_3 is formed. This view is supported by experimental observation. The mass of carbonic acid, for example, dissolved by water at ordinary temperature and pressure, increases as the pressure; but at a pressure of two, three or more atmospheres the mass of CO_2 dissolved is less than that calculated by the laws of Henry and Dalton. When the pressure, acting upon water which has been saturated with CO_2 gas, is diminished, most of the CO_2 escapes, at first rapidly, then slowly; the last traces of CO_2 can only be removed by placing the water *in vacuo* or by continued boiling. A striking piece of evidence in favour of this view that H_2CO_3 exists is afforded by the fact that the metal magnesium reacts with a solution of CO_2 in water as though a free acid were present, hydrogen being evolved and magnesium carbonate formed in accordance with the requirements of the following equation:— $H_2CO_3Aq + Mg = MgCO_3 + H_2$. Still further evidence towards this view is furnished by the fact that water holding in solution carbonate of sodium or potassium dissolves considerably more CO_2 than pure water, definite salts known as bicarbonates being produced, $NaHCO_3$ and $KHCO_3$. Blue litmus, again, turns wine-red in aqueous solution of CO_2, the blue colour returning on exposure to air, but in contact with the moist gas at pressures only of one to two atmospheres it becomes vermilion-red as though it had been exposed to a mineral acid. The affinity or combining power of CO_2 is, however, small, for the carbonates, which in this respect simulate the sulphites (SO_2 derivatives), are readily decomposed by the common acids.

If water saturated with CO_2 gas under pressure contains true H_2CO_3, then some explanation of its action upon many metals based upon this hypothesis might be expected. A short time since some experiments were instituted in THE LANCET laboratory to ascertain which metals, and especially which of those used in the manufacture of beverages, are acted upon by carbonic acid. For this purpose pure specimens of lead, tin, copper, antimony and iron were selected. Clean bright pieces of the metals were placed in ordinary water, CO_2 was bubbled through for some time and the solution then decanted, filtered and examined. The following observations were made:—Lead was dissolved in considerable quantity as carbonate, the metal showing unmistakable signs of corrosion, and on boiling the solution a precipitate consisting of basic carbonate subsided. Tin did not appear to undergo the slightest change and the liquid when tested gave only a faint and doubtful reaction. The water containing the copper strip gradually assumed a green colour and on boiling the filtered solution a considerable precipitate of green copper carbonate was obtained, just as on boiling the CO_2 out of hard water chalk ($CaCO_3$) is precipitated. Zinc was even more energetically attacked; it became covered with a loosely adherent white powder and the filtered solution gave strong reaction for zinc, while zinc carbonate was abundantly precipitated on boiling. Antimony was found to dissolve to a slight extent only, and this did not appear to be influenced by the CO_2, as it was also found to dissolve in small quantity in water not charged with CO_2. Iron was strongly attacked, the solution on boiling giving a dirty reddish-brown precipitate. No precautions were taken to exclude air from the water through which the CO_2 gas was bubbled.

It seems evident from these experiments that ordinary water containing an excess of carbonic acid gas is capable of taking into solution distinct quantities of lead, copper and zinc, but not tin—possibly carbonates are formed which dissolve in an excess of CO_2. Although in the case of magnesium (vide supra) hydrogen is evolved, no hydrogen was evolved in the above experiments; the CO_2 would therefore seem to act as a feeble acid upon a film of oxide of the metal formed by the action of the oxygen in the water, unless it is that hydrate is first formed (as might be the case, more particularly with lead), which is then rapidly converted into soluble carbonate by the excess of CO_2. Precisely similar actions occur of course with the mineral acids. Thus, while hydrochloric acid does not dissolve copper, it readily dissolves the oxide or hydrate forming copper chloride. Acetic acid, again, rapidly dissolves oxide or hydrate of lead forming acetate, but the pure metal is unaffected.

In the laboratory during the ordinary course of analytical work we have invariably found traces of copper in soda water, but, although there are instances on record of lead having been found, we have never met with a single sample so contaminated. Copper, for various reasons, is, in fact, largely employed in the construction of aerated water machinery. According to our experiments, however, it would be better to employ tin, and then contamination of aerated water with injurious metals would be entirely avoided. But tin is not so workable as many other metals; it is too soft for some uses and too brittle for others; while it is very expensive. In spite of these drawbacks, however, we have recently inspected some soda water machines in which it is impossible for the water to come in contact with any other metal than the purest tin, and tin is for all practical purpose as good as the noble metals gold, platinum and silver. Even the joints in these machines are thickly lined with tin, and all leading pipes are made of block tin. We visited the premises of the well-known engineers Messrs. Hayward, Tyler and Co., of 90 and 92, Whitecross-street, E.C., where these machines are being made. The condensers of these machines, in which the carbonated water is contained under pressure before being drawn off into bottle, are made of copper, thickly lined inside by a special and ingenious process with the purest grain tin. Larger condensers are made of best gun metal, in which case they are silvered. The water is conveyed into and from this condenser also through tin piping, the joints of which are of the same metal. We secured samples of the metal so used, and also a specimen of syphon heads which was sent to THE LANCET laboratory and examined. About the purity of the metal used for the lining process there can be no doubt whatever, for the mean result of several analyses gave the quantity of chemically pure tin as 99·90 per cent. Water saturated with CO_2 was then placed in a copper cup similarly lined with tin and specially made for the purpose of these experiments, and left for several days. The metal showed no signs of deterioration, while the minutest test failed to indicate even the smallest quantity of metal in the liquid. The syphon head was found to consist also of tin, with a small proportion of antimony, the antimony being used in order to make the heads durable; but it is important to add that neither lead nor copper was found in any single instance. It may be remarked that copper or other metal tinned in the ordinary manner is not satisfactory, and once the copper is exposed the solvent action proceeds with comparative rapidity. But in the machinery made by Messrs. Hayward, Tyler and Co. a definite thickness, one-eighth of an inch perhaps, is laid by a special process upon the metal, so that flaws due to excessive thinness of the coating are not possible; the "life" of the apparatus is thus almost indefinitely prolonged.

Soda water machinery has been brought during recent years to a marvellous pitch of perfection, and it is doubtful whether any other industry has made such rapid strides in so short a time. But the recent improvement which Messrs. Hayward, Tyler and Co. have effected is one entitled to the greatest praise, inasmuch as its object is to secure a greater degree of purity in a beverage that is very generally consumed. It must be admitted that the introduction of plant that will turn out 150 dozen of soda water per hour, about which there cannot possibly be the slightest suspicion of metallic contamination, is a distinct advance and one calculated not only to confer benefit on the community, but also to add considerably to the interests of the mineral water industry.

PRECAUTIONS AGAINST CHOLERA.—In order to promote uniformity of action on the part of the various port authorities of England in view of the possible appearance of cholera this year a conference of delegates has been arranged by the Port of London Sanitary Committee. The meeting will be held at the Guildhall at an early date, under the presidency of the Lord Mayor.

Pharmacology and Therapeutics.

THE TREATMENT OF ACID DYSPEPSIA.

M. BAUDET, in a recent communication to the Société de Thérapeutique, stated that he found this condition was frequent amongst persons with a rheumatic diathesis. He regarded the following symptoms as characteristic: Inaction of the skin and liability to cold; tendency to over-secretion of hydrochloric acid and to dilatation of the stomach; tendency to fermentative changes; liability to constipation and hæmorrhoids; formation and absorption of toxines, from which headaches resulted; and the formation of gas within the stomach. The condition of the skin was to be relieved by warm affusions, by friction with a horse-hair glove, by exercise and warm clothing. To counteract the over-secretion of hydrochloric acid he thought it advisable to employ articles of diet which are rapidly removed from the stomach (eggs, milk, vegetables) and to forbid the consumption of meat and the use of wine and alcoholic drinks, while allowing the use of non-effervescing alkaline waters. The tendency to fermentative changes and the absorption of toxines were to be counteracted by internal antiseptic treatment. He considered benzonaphthol preferable to naphthol, which is too caustic, and to asaprol, which is too soluble. Salol, though good as a disinfectant, possessed an odour which many patients could not tolerate. Salicylate of bismuth was also recommended in cases where the kidneys were free from disease. Benzonaphthol in most cases should be used in doses of five grammes twice a day with the principal meals. The dose of salicylate of bismuth given in the same way is from two to three grammes. It is well to give magnesia with salicylate of bismuth to counteract the constipation from which these patients habitually suffer. The action of the intestine might also be favoured by the use of quassia.

DULCINE.

Under this name a new substance has been described which, on account of its sweet taste and its complete freedom from toxic properties, appears likely to attract attention. It is obtained by means of para-phenetol carbamide, a compound prepared in 1883 by Berlinerblau, at which time the manufacture was hampered by its great cost. A new process has, however, been discovered which will in all probability reduce the price sufficiently to allow of general use.

THE IDENTITY OF CAFFEINE AND THEINE.

In consequence of various statements that the physiological action of theine obtained from tea differs in certain respects from that of caffeine obtained from coffee, Mr. W. R. Dunstan and Mr. W. F. J. Shepheard have sought for evidence of isomerism in these bases, and have published their results in the *Pharmaceutical Journal*. Having extracted theine and caffeine, they found that the two substances melted at the same temperature—viz., 234·5°. From each base a crystalline auro-chloride was prepared, and these two salts melted at the same temperature—248·5°. The complete correspondence in the properties and composition of the auro-chlorides afforded satisfactory evidence of the absence of a structural difference in the bases. The mercuric chloride compounds derived from each melted at the same temperature and exactly corresponded with each other in other respects. Considering the complete identity of caffeine and theine to have been thus demonstrated, Messrs. Dunstan and Shepheard think the observed differences in their physiological action must be ascribed either to impurities in the specimens used or to variations in the animals employed in the experiments. In the course of their investigations two new amic derivatives of caffeine were obtained—an aurochlor-caffeine and a caffeine potassium auro-chloride.

INDIAN OPIUM.

At a meeting of the Pharmaceutical Conference the opinion was expressed that there was no reason why India, instead of Turkey, should not supply the whole world with medicinal opium. Native opium is used for medicinal purposes in India, and the receipt of a sample of the Patna opium issued by the Medical Store Department of Bengal has enabled Dr. B. H. Paul and Mr. A. J. Cownley to institute comparisons with a good sample of Turkey opium. The Patna opium in the state of powder contained 3·2 per cent. of moisture; in the dried opium the amount of morphine was found to be 8·55 per cent. A tincture made with the dried opium according to the directions of the Pharmacopœia yielded on evaporation to dryness a residue of extract amounting to 21·3 grains per fluid ounce. The amount of morphine contained in the tincture was 2·74 grains per fluid ounce. The sample of Turkey opium in the dry state contained 10·84 per cent. of morphine. The extract yielded by the tincture amounted to 19·8 grains per fluid ounce and the amount of morphine in it was 3·4 grains per fluid ounce.

TOXIC PROPERTIES OF OXIDE OF ZINC.

Oxide of zinc is so commonly employed externally that the possibility of toxic action when used internally in large doses has been generally overlooked. It has been found by MM. L. d'Amore, C. Falcone and L. Maramaldi that in dogs toxic symptoms resulted from the daily administration of fifty centigrammes of oxide of zinc, death occurring within from ten to fifteen days. The symptoms noted were repeated efforts to vomit, weakness of movements, partial loss of sensation, wasting, diminution in the quantity of water, which was high-coloured and contained hæmoglobin, albumen and sugar, and a partial destruction of red corpuscles. After death the tissues and organs were found to be remarkably pale, while the liver, kidneys and pancreas presented evidence of fatty degeneration.

EUCALYPTEOL.

Eucalypteol is a crystallised bichloride of eucalyptene which has been prepared and examined therapeutically by Dr. Lafage of Neuilly, and which, according to an article he publishes in a recent issue of *Les Nouveaux Remèdes*, presents great advantages over all other preparations of eucalyptus, having a definite composition and a uniform action and being entirely innocuous. This body occurs as white scales having a special odour, almost tasteless at first, but after being a short time in the mouth giving a slightly bitter taste. It is soluble in ether, chloroform, fatty and volatile oils and alcohol, which last, however, partially decomposes it. It is almost insoluble in glycerine and in water; alkalies decompose it. It is highly antiseptic, infinitesimal quantities being sufficient to prevent putrefaction in liquids containing organic substances, but it does not interfere with the action of ferments such as diastase, pancreatine and pepsine. Experiments on animals showed that when administered by the mouth elimination takes place by the lungs and also by the bowel and urine, but when given hypodermically elimination takes place almost exclusively by the lungs. Its physiological properties appearing to indicate that it should have a therapeutical action on respiratory, digestive and perhaps also on kidney affections, about 150 clinical observations were conducted to test its value. In phthisis it was found useful in allaying the cough and other symptoms. The alkalinity of the intestine causes eucalypteol to break up, thus deodorising the canal by means of gaseous aromatic products of decomposition, and several cases of severe diarrhœa have been rapidly cured by it. In typhoid fever, too, it has been given with satisfactory effects. Observations on urinary diseases have not as yet been made. Eucalypteol is best administered in powders or in capsules; from fifteen to twenty-two grains may be given per diem, this quantity being divided into several doses, which are best taken during the interval between meals. Children of four or five years of age may be given six to eight grains during the twenty-four hours.

PYREXIA IN UNICELLULAR ORGANISMS.

Dr. Max Herz of Vienna has made some experiments showing that unicellular organisms attacked by microbes suffer from fever in exactly the same way as more complex organisms. He made his observations on yeast cells. After determining the quantity of carbonic acid developed in a certain time during ordinary fermentation produced by the cells, he tried to infect them by adding to the fermenting liquid a few cubic centimetres of a putrid liquid. Infection appeared to take place, producing an increase of carbonic acid and a rise in the temperature of the liquid. If, instead of the ordinary putrid liquid, this same liquid, heated and filtered, was added, the change was much less marked. It seems, therefore, that it is possible to produce by microbic infection a true fever in unicellular organisms similar to that of human beings. Dr. Herz then studied antithermic action on the infected yeast of certain chemical antipyretics. He found antipyrine had

absolutely no action, but that menthol, on the contrary, even in very small doses, arrested the abnormal action of the yeast. Finally, in another series of experiments made with the grains of rye Dr. Herz found that the temperature of those vessels which were infected with putrid matter was higher than that of those which contained rye germinating in the ordinary way.

LOSOPHAN.

Losophan may be looked upon as a tri-iodide of cresol. It contains 80 per cent. of iodine and is soluble in alcohol and readily taken up by fatty substances. Dr. Saalfeld[1] finds a 1 per cent. ointment exceedingly valuable in skin diseases due either to vegetable or animal parasites, as tinea tonsurans and pityriasis versicolor; for pediculi capitis and pubis, 25 per cent. of vinegar is added to the ointment; and in the case of scabies a stronger preparation is employed containing 2 or 3 per cent. of losophan. In chronic skin infiltrations an ointment of the strength of 1 or 2 per cent. was very useful, but in acute eczema it appeared to be irritating. In prurigo, sycosis vulgaris, acne vulgaris and rosacea, and in pruritus it was very effectual. It appears to be of little use, however, in psoriasis or urticaria and is contra-indicated in acute inflammations of the skin.

THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

BY F. J. MOUAT, LL.D., M.D. EDIN., F.R.C.S. ENG.

I.

"Finis coronat opus."

FOR more than a century past what is now known as the "hospital question" has excited interest and attention throughout Europe, and particularly in France and England. Works of high authority have been written on the subject, based upon the personal and practical experience of distinguished members of the medical profession closely connected with the study and practice of the healing art in its application to the relief of sickness and injuries, and the advancement of the science of which it is the outcome. It has also attracted, particularly in our own country, the earnest sympathy and active support of those philanthropists who have laboured much amongst the poor, and know what misery and suffering are endured by them from causes mostly beyond their control, when struck down by accidents or diseases which imperil their lives, temporarily or permanently impair their usefulness and in too many cases break up their homes, subjecting their families and themselves to the pains and penalties of destitution.

I hold it to be imperative upon all engaged in the consideration of questions of such magnitude and importance in their social and scientific relations to study carefully their history before attempting to suggest remedies for the removal of such defects in their working as diminish or destroy their usefulness, and to introduce such improvements as experience and the advance of science may suggest.

From our national and healthy proclivity and proneness to self-reliance in all difficulties and dangers to assist ourselves and to deal by voluntary effort, whenever and wherever practicable, with such evils as are susceptible of mitigation or removal in our social system, the charitable aspect of medical relief has naturally become one of the leading factors in the assistance of those who are unable to assist themselves, when compelled to resort to public institutions for relief in sickness. I regard the collection of funds for the maintenance and proper working of hospitals as the first step of importance in the proceeding, and not the be all and end all of its disposal, which, in my humble opinion as a hospital physician and administrator in the early years of my official career, is the successful treatment of disease, the provision of relief to the really poor immediately it is required, and the advancement of medicine in its curative, preventive and educational aspects. If private charity is unable, in the exceptional vastness of the greatest number of human beings ever collected in a restricted space, to provide the means of accomplishing all that is expected—nay, even demanded—from it in existing circumstances, is there no *via media* by which State aid and private benevolence may not join hands, to complete the work, without violating the sound economic principles on which both are based? This is a question which I shall consider further on. My present object is to give a necessarily brief *résumé* of the history of hospital management in the present and past century by a notice of a few of the works which have exercised the greatest influence upon it.

The earliest authority of repute who has dealt with the whole question in a strictly scientific and practical manner, is M. Tenon in his "Mémoire sur les Hôpitaux de Paris." He was an eminent professor of pathology, who was selected to report upon the reconstruction of the Hôtel Dieu after its destruction, and his work was published in 1788, a little over a century ago. After obtaining all the information he could procure on the hospitals of Italy and Germany, he came to England, was in personal communication with the leading medical authorities of the time and visited most of our best and greatest hospitals, which he evidently examined with scrupulous care. He was much struck with the hospital at Plymouth, built upon the pavilion principle and devoted to the treatment of 1200 inmates. His inquiry was devoted principally to the management and structural arrangements of all these institutions, and on his return to Paris he embodied the results of his observations in his celebrated work, in which every branch of the subject was specially treated. He regarded the Plymouth Hospital as "le plus bel et plus parfait pour sa destination" which he had visited, and throughout his treatise evidently refers to much of what he had seen, but guarded himself from expressing approval or disapproval, on the ground that in all cases hospitals must fulfil their special purposes, subordinated to conditions of climate, surroundings, manners and customs and all other details, which must be in harmony with the national peculiarities of each country and people. His work was approved of by the Academy of Sciences and of Surgery, and pronounced in its construction and arrangements to have omitted or forgotten nothing, while nothing in it was out of place. His work may still be studied with advantage, for in his own country it has continued to exercise considerable influence, and has not been without effect upon our own.

In this country, in 1796, an eminent surgeon and earnest philanthropist, Sir William Blizard of the London Hospital, made a partially successful attempt to point out for correction some of the most prominent technical and general defects in the then existing hospitals. His contention was contained in a few brief notes, was restricted in its scope, and attempted no systematic view of the subject. Such as it was, his action was in advance of his time. In another paper, entitled "Propositions for promoting the Usefulness and Prosperity of Hospitals and other Public Charities," he advocated the formation of a "mutual aid society" to harmonise and connect the actions of the managers of hospitals and other charitable institutions by an annual stocktaking of their respective charges, with a view to remedy imperfections and errors and introduce such changes and improvements as seemed to be desirable, after personal examination and discussion.

This sound and sensible proposal was suited to the character of the time, but although correct in design, it failed in execution. Sir William Blizard considered that hospitals, being strictly public institutions, whatever their endowments, had public duties to perform, and were thus directly responsible to the public for their acts. Hence he was of opinion that their removal from public control was injurious to them, as when societies intended for general benefit become wholly independent of public opinion there would often be "a disposition to abuse the means at their disposal, so that with private interests as a ruling principle of action the expectations of science and humanity are disappointed." He also indicated the fallacy of parading numbers as tests of success, and pointed out more than one practice which needed amendment then, and some of which are still in existence and need it as much now.

The subjects of hospital reform and of Poor-law reform received vigorous treatment from the pen of Thomas Wakley, the founder of THE LANCET, who from the foundation of that periodical, notwithstanding much interested opposition, did not hesitate to expose abuses both as regards the medical staff and the management. A reference to the Editor's notice in 1824 will show that, so far as reforms of various sorts were concerned, "THE LANCET had not existed in vain." He did not restrict his asseverations to literature, but boldly advocated in Parliament the thorough reform of these institutions.

From the beginning of the present century and for many years afterwards, the subject attracted little public attention, and produced no such lasting record as the work of M. Tenon or

[1] Therapeutische Monatshefte, No. 10, 1892.

the brief notes of Blizard, who was, I believe, the originator of the Samaritan fund. The report of the great Poor-law Act of 1834 does not appear to have directed any special attention to sickness as a cause of destitution, or to the provision of any separate institution for the reception of sick paupers. It drew, however, a distinction between indigence and poverty, which has not, I think, been as carefully observed since as it should be. The great awakening on the question of hospitals as charitable institutions occurred after the Crimean War and was, I believe, in a great measure due to the work and example of Miss Nightingale, to whom will always belong the transcendent merit of having taken a leading part in the introduction of some of the greatest, most enduring, and most valuable improvements in our hospital system. The discussion of the many aspects of the question has since been constant in our medical journals, in the proceedings of the Social Science Association and other kindred associations, as well as in special conferences of men thoroughly conversant with the subject, all of which failed to move the Government of the country to take any action in the matter until very recently. The persevering and ultimately successful and admirable procedure of the Charity Organisation Society deserves to be recorded most prominently. The action of the medical department of the Privy Council, prior to its absorption in the Local Government Board, and the provision by the latter body of some of the best hospitals we have, are also very important incidents in the recent history of the question. In France, about the same time, when a third rebuilding of the Hôtel Dieu became necessary, the subject was again carefully investigated. To notice a tithe of the records of permanent interest accumulated in France and England at the time referred to would be impracticable, but in both countries exceptionally important results of the active labours of the period exist which deserve special mention. The first I will refer to is Husson's great "Etude sur les Hôpitaux," a magnificent contribution in every sense, which included, very much in the form adopted by M. Tenon, all particulars relating to the construction, arrangements, hygiene and professional works of hospitals in general, and of the proposed leading hospital of Paris in particular. It was published in 1862, was well illustrated and embodied the experience of its author when he was administrative head of the Assistance Publique in Paris. His department had previously sent a deputation of its chief medical and engineering inspectors to England to study our plans and procedure—Messieurs Blondin and Ser—who, after a minute and careful investigation, embodied the results in a special report which was also published *in extenso*. Between the French works and English reports are to be found all the particulars of two entirely different methods of dealing with the question, one altogether by State management and control, the other—our own—known as the voluntary system, which is chiefly under irresponsible private bodies, except in our Poor-law hospitals and infirmaries, which are under local public management, supervised by a special board of control, the Local Government Board, and thus become State institutions, so that we have both systems in our own hands, as guides in dealing with the question. A careful study of them, both by personal visitation and published records, has satisfied me that there are points of excellence in either which might be useful to the other, but that neither system in its entirety would be suitable for both, for the reasons mentioned by M. Tenon and quoted above. To attempt to analyse the works referred to in detail would occupy more time than I can give to it, and more space than could be afforded me in the columns of THE LANCET.

Moreover, it is not necessary, until an analysis of the evidence produced before the House of Lords' Committee and their report upon it have been scrutinised, to ascertain the remedial measures suggested to remove existing defects, regarding which so much diversity of opinion at present exists. The most scientific, reliable and important contribution to the question of the management of the civil hospitals of Great Britain is the report of Messrs. Bristow and Holmes on the inquiry conducted by them under the direction of Sir John Simon, whose attention was attracted to the subject by the absence of all trustworthy information regarding the sanitary circumstances of and medical and surgical work done in our hospitals. This invaluable record is contained in the sixth volume of the Transactions of the medical department of the Privy Council. It is divided into two parts. One part is devoted to the regulations of hospitals regarding the admission of patients, the kinds of diseases admitted or excluded, the separation or admixture of different classes of disease, to the classes of patients admitted and to other minor particulars. The other division of the work is devoted to the construction of hospitals, and both were reviewed by the head of the department, in a section of his introductory examination under the title of the "Statistics and Hygiene of Hospitals." The reporters visited Paris with a view to compare the French and English systems, as had been done in France, for our plans and procedure. The French hospitals were and are all Government institutions, although some of them were possessed of endowments insufficient for their maintenance, which were safeguarded by the State, but no private rights or interests in them were allowed, nor were they given any share in the management of the institutions to which they belonged. The State demanded that the hospitals should secure aid to all the sick poor of their respective departments, who would otherwise become a charge upon the public or be left to perish. A bed had to be found for every person poor enough and sick enough to require to be treated in a public institution. Their sick poor are thus more thoroughly succoured than are ours, without any intervention of a poor-law. They regard some portions of our voluntary system of relief of the sickness of the poor as inhuman and unfit for introduction in France, where sickness and poverty alone are passports of admission.

The English report is very valuable on another ground, as showing in an exact manner the actual state of each of the many institutions visited and examined at that time. It may be useful to compare them with the evidence on the same points contained in the statements submitted to the House of Lords' Committee.

In 1881 I wrote a series of papers on the construction and management of hospitals, which were published in THE LANCET[1] of that year. They attracted considerable attention at the time, and were in consequence in 1883 extended and embodied in a joint work by Mr. Saxon Snell and myself on the subject, all matters concerning construction by the former, the medical and charitable relations by myself. A second edition was called for and published in 1889. Both are now out of print. In the work referred to most of the matters which it was deemed desirable to refer to a Royal Commission are treated at some length, and in my inaugural address to the Royal Statistical Society, of which I was the President in 1890, a reference was made to the hospital question which I venture to reproduce now, as embodying a brief *résumé* of my views on the question.

"A Hospital Board for London."

"With the exception of the Poor-law institutions, the hospitals of London are under no other control or supervision than those of their own establishments and supporters. They represent an order of things which in every other class of public institutions of like character has passed away. As a body or even individually they render no connected account of their proceedings in finance, medical statistics and similar matters of general and scientific interest, to enable the public or the profession to form a correct estimate of the worth of their work. All medical establishments of the character of hospitals are public institutions and essentially charities in their chief aim and purpose—the treatment of the sick poor—and should not be subordinated to any other use. From their very nature they need the most careful regulation and to be dealt with as all other charities are. No one has ever questioned the value of the work performed within the walls of those of established character. They are in this respect monuments of science, skill and philanthropy of the purest and most elevated type. But the isolated and independent action of the different institutions robs them of much of their usefulness and tends to impair the higher ends expected from them. We live in a time when combined action and organisation are the watchwords of the age and it is no reproach to the older institutions that in this respect they are not altogether in harmony with them. Their removal from strict public scrutiny is, in my belief, one of the reasons of the withholding of the pecuniary support which they formerly received, added to the phenomenal growth of the population of London, which has outstripped the ordinary means of dealing with such difficulties. The remedy for the present evils, so forcibly represented in the memorandum of the Charity Organisation Society, will, I think, be found in the creation of a central board of supervision in which all the interests concerned should be fairly represented; which should, for the present, leave untouched the

[1] THE LANCET, July 16th, 23rd and 30th, Sept. 3rd and 24th and Oct. 21st, 1881.

usual procedure of all authorities connected with existing institutions; should have power of control and supervision similar to those now possessed and exercised by such a body as the Metropolitan Asylums Board, and armed with authority to call for detailed returns upon a uniform plan of finance and statistics, with a view to their digest and publication annually in such manner as may be deemed most useful. To enable such a body to be created so as to exercise effective control over the hospitals of the metropolis, hospital London should, I think, be divided into five sections, corresponding to the five registration districts, of which the population, as ascertained in 1881, is noted below :—

Districts.	Area in acres.	Population in 1881.	Number of persons per acre.	Number of hospitals in each district.	Number of hospitals to the square mile.	Number of beds.	Ratio of beds to the population—1 to
West District	10,399	669,633	64	27	1·7	4,497	149
North ,, ...	13,468	905,947	67	29	1·4	4,289	211
Central ,, ...	2,132	282,238	132	17	5·2	1,979	142
East ,, ...	5,500	692,733	126	15	1·7	5,717	121
South ,, ...	43,835	1,265 927	29	23	0·3	7,555	168
Total	75,334	3,816,483	51	111	0·9	24,037	159

The central board should contain representatives from all the great hospitals of the five districts, should be distinctly elective in character, should consist of the lay and medical elements in equal proportions, and should comprise a sufficient number of members to admit of the formation of an executive committee for each district. It should perform in addition such of the functions of the Bureau d'Assistance Publique in Paris as can fairly be engrafted upon our manner of managing matters, with no further assistance from the State than the bestowal of legislative sanction to so much of the plan as requires Parliamentary authority. To attempt in an opening address to work out this or any other scheme that may be suggested for so exceptional a city as London, is manifestly impossible; I must therefore content myself with its mere mention. In any case it will need much prolonged and careful inquiry to determine what ought ultimately to be done, and what is immediately practicable. Having referred to the Metropolitan Asylums Board as an institution of similar character, I deem it right to bring to your notice its manner of performance of a most important part of its work—that which has immediate relation to the functions of this Society—the collection of statistics to illustrate the nature and results of its labours. The special duties of this board are to superintend the fever hospitals and pauper lunatic asylums of the metropolis, in the interests of public health and the prevention of the extension of infectious diseases. To this have been added the regulation of the ambulance system and the management of a training ship. The effective control of the spread of infectious fevers is a far more difficult task than the management of ordinary diseases and accidents, inasmuch as the one only affects the individual, whilst the other, if unchecked, may become disastrous to whole communities. [The excellent manner in which its duties have been performed may be gathered from its published reports—models of their kind, such as no others of our public institutions afford.] If equally skilled care and attention are bestowed in the more extended control of the hospital system of London by a properly organised and authoritative central board the various faults found with the existing uncontrolled system can be dealt with in the only manner likely to be attended with success. The absence of a proper system of independent inspection and audit; the irregularities of the out-patients' departments; the regulation of the relations of the schools to the hospitals; the discipline, duty and training of nurses; the suppression of all useless or mischievous special hospitals and the prevention of the creation of others of similar character; the adoption, audit and publication of a uniform system of accounts; a scientific but simple collection and annual publication of the medical statistics of all hospitals on a uniform plan; the extension of institutions for the reception of convalescents and the various side issues which are constantly arising, are all many-sided questions which require patient investigation by a skilled agency, armed with authority to deal with them decisively, before any change is attempted. All this is a question of time, for the radical reform of old institutions, to be permanent as well as to find acceptance, must be of slow growth. Structures, which from time to time need removal or renewal, should be built up again as much as possible on pre-existing foundations."

I have purposely restricted my remarks to matters which have come under the purview of the Lords' Committee, and I have not yet attempted the elaboration of a complete scheme of arrangements for London which will, if possible, bring public and private charity into harmony, so far as can be accomplished without detriment to either. When the detailed statistics of the recent census of London as a whole are published I hope to be able to see my way to making the attempt, but I regard the provision of a central board, if properly organised, to be the keystone of the arch, if armed with the requisite authority, to accomplish the difficult task which will be assigned to it. This much of any plan of reform need not be delayed by any other consideration, and, it is hoped, may lead in the near future to the creation of a special public health department, under a responsible Cabinet Minister.

CHOLERA.

CURRENT NOTES, COMMENTS AND CRITICISM.

THE late recrudescence of the epidemic at Hamburg in the shape of a sharp outbreak disturbed the confidence of the officials and people of Germany and called attention to the fact that the danger is by no means past. The cholera record for Hamburg for Dec. 29th showed seven fresh cases, one of which terminated fatally—four occurred in the city and three in the suburbs; that for the 30th included six deaths, one of which was in the shipping quarter, and there were two fresh cases of suspected cholera. At the same date five deaths were reported in Altona and two in Wandsbeck, besides one case of suspected cholera. On the last day of the year there was one case notified at Hamburg and one on the first day of the present year, and three cholera deaths were reported at Altona on the first-named date. As regards France, the bulletin from Paris for the week ending Dec. 29th showed two deaths as having occurred during the previous week. At Dunkirk three deaths occurred during the last week of 1892. The disease was also said to be spreading at that time at Grand Fort Phillipe, near Gravelines, where sixteen deaths were reported on Dec. 28th and 29th. Several cases of "cholerine" were also reported in the neighbourhood of Brest and some suspicious deaths were said to have occurred among the navvies employed in the construction of a railway.

According to the latest reports from Warsaw cholera was prevalent in the governments of Radow, Lubin and Plock and huts had been erected on the Prussian frontier for the detention of travellers.

The weather on the continent of Europe appears to be very severe at the present time, as it is in this country, and although the persistence of cholera in cold weather in districts and places where it has been previously prevalent is not by any means unknown, still it is extremely rare for the disease to extend itself or prevail with any epidemic force during the winter season. It is curious how the results of experience in France are corroborative of those of our own in 1865 and 1866, when cholera never attained any wide spread in the well-sewered towns of England and of that in Munich in 1873, when the properly sewered part of the town had only

half the mortality and sickness of those portions that were badly or not at all drained. What is wanted at the present time is a thoroughly exhaustive inquiry into the local spread of cholera, in places where all the circumstances are known and the various factors can be ascertained and determined.

CHOLERA IN FRANCE.

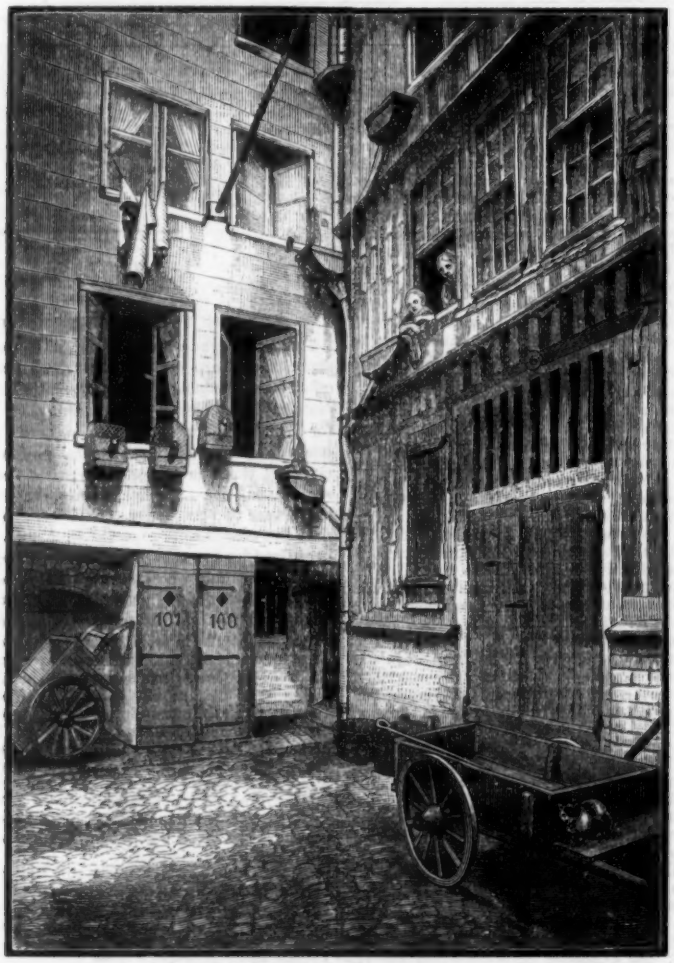
(FROM OUR SPECIAL CORRESPONDENT.)

DOMESTIC DRAINAGE.

Necessary Measures and Measures immediately Applicable.—The Pail System at Havre.—The Window Sinks and Slop Water Contamination.—Cholera Dens at Havre, Honfleur and Rouen.—Befouling the Subsoil of Dwellings.

IT is universally acknowledged that "good sanitation" is the best protection against cholera, but it is important to add that in the term "good sanitation" must be comprised the condition of the subsoil as well as that of the houses standing on the soil. If we only judge by what appears on the surface we shall often be surprised to find that quarters which seem most unwholesome are exempt, and other districts, less crowded, less dirty and poor, contribute the larger number of victims to the epidemic. The probable explanation of such difference will be attributable to the condition of the subsoil. But, it may be urged, how can the condition of the subsoil be altered? Above all, can this possibly be done before next spring, when cholera may return with increased virulence? Certainly want of time, but above all want of money, will render it impossible to carry out extensive works of sanitation between this and next spring. Nevertheless a great deal could be done. An entire system of sewers cannot be extemporised in a few months, nor can water be brought to a town in a similar period; but, if the streets must remain in an unsatisfactory state, there is no reason why the condition of each individual house should not be vastly improved. This may not altogether suffice to ward off the danger, but it will lessen the damage likely to ensue. In Normandy especially there are one or two measures which obviously should at once be applied. This is a matter which interests not only the inhabitants of Normandy, but also the British public. It must be borne in mind that a very large proportion of the fruit, the poultry, the butter and the eggs consumed in England comes from Normandy. That these provisions should reach us from a cholera-stricken country is a matter which cannot be contemplated otherwise than with concern. Fruit and other provisions coming from Hamburg last summer were stopped in some of our Northern ports and sent back to Germany; if the much larger supplies shipped

FIG. 1.

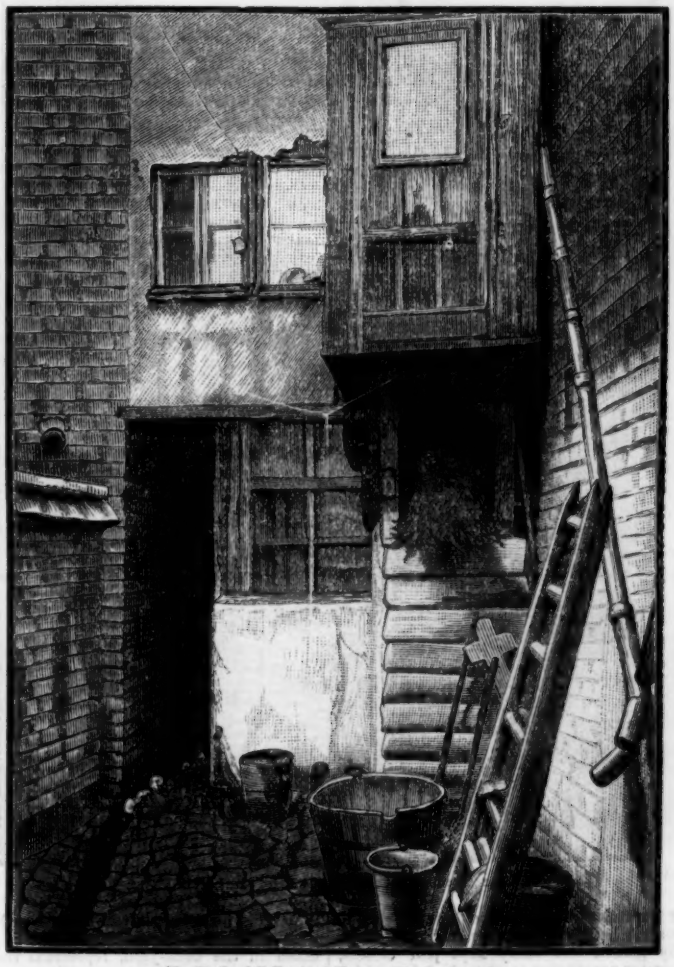


No. 17, Rue des Gallions at HAVRE. The back yard.

to England from the ports of Normandy—Honfleur, Havre, Dieppe—were treated in a similar manner, the consequences both in England and France would be most disastrous.

Though it is not possible to build before next spring sewers and aqueducts enough to give a proper water-supply and to efficiently drain all the towns that are menaced by the cholera epidemic, there is no reason why great improvements should not be effected in the domestic drainage of the towns in question. Throughout Normandy the subsoil of inhabited houses is saturated with slop water. The accompanying illustrations show how this occurs. For instance, No. 17, Rue des Galions is one of the cholera-stricken houses of Havre. This and the other houses at Havre were photographed by M. L. David, architect of the town. With him I visited the houses in question. The Mayor of Havre, acceding to my request that they should be photographed, was good enough to present me with copies, and the accompanying sketches are faithful reproductions of these photographs. The Rue des Galions is one of the narrow streets in the Quartier Notre Dame, running down to the Grand Quai of the Avant Port, or tidal basin. (See map in THE LANCET of Nov. 12th, 1892.) Entering a passage I found a badly kept urinal. A door on the left-hand side served a double purpose: it was at once a closet door and a street door. The closet consisted of a large tub placed in a dark corner; there was no seat. By pulling the street door open this shut off the corner and ensured a certain privacy. When the street door was shut there was nothing to check the smells from the tub ascending into the building. In the wall near the tub a little hole had been made so that any liquid filth on the floor might flow out into the passage leading from the back of the premises to the street. Immediately opposite, on the other side of the passage, two more tubs were placed facing each other, under a staircase. There was not room to stand up under the steps and the corner was absolutely dark. A rough wooden seat was fitted over the tubs, but they were not closed, and gave forth horrible odours, which passed up into the house through the chinks in the stairs that covered them. The passage in which these pail closets were situated led from the street to an inner yard surrounded by dwellings four storeys high. In this roughly paved yard there were several costermongers' carts and two more pail closets, standing side by side, near the entrance to the houses at the back of the yard and just under a bedroom window. This will be noted in the accompanying sketch, and it will also be observed that the inhabitants of the room in question, not content with the effluvia from these pail closets, keep a stock of parrots and other animals. The staircase being in the corner of the yard serves for the buildings on both sides of the angle. In this corner there is, on each floor, a large inner room; and on

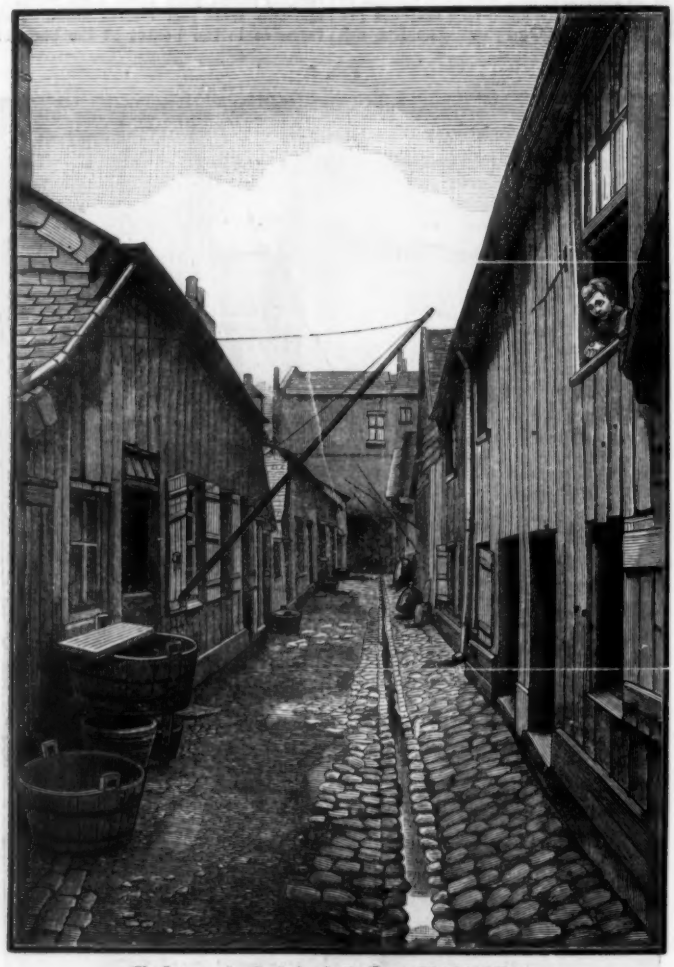
FIG. 2.



No. 21, Quai Colbert, at Havre. The back yard.

the first floor this inner room, being surrounded by other houses, has no window, no light whatever. Yet this room, into which daylight has never penetrated, has been selected to serve as a common lodging-house dormitory. There are seven beds in the room, let out at the very high charge of fifty centimes per night to promiscuous lodgers. On the second floor the corresponding room, in consequence of irregularity in the shape of the surrounding buildings, has a window, but it measures only one foot square. On the third floor the room has several small windows. Surely it would be possible to prevent persons sleeping in rooms that have no windows and where daylight can never enter. It will be seen also that there is room to construct more closets in the yard, so that the abominations under the stairs in the passage from the yard to the street might be abolished; but, apart from the abomination of these badly placed and badly kept pail closets, the disposal of slop water constitutes an organic defect which exists throughout Normandy, and this is well shown by the photograph. A receptacle called a *plomb* will be noted by the side of several windows; it is a sort of sink. Into this are thrown all the slops, here are cleansed the chamber utensils, and here are often left the dirty brushes and cloths &c. used for such purposes. There is no flush or method of cleaning these sinks, and needless to say that, as the closets below are some distance away and are extremely filthy, it often happens that human dejecta are emptied into the sinks. The sink and the pipe beyond are greasy, filth adheres to the sides, and they give forth unceasingly the worst odours. Yet these foul-smelling mouths are just at the windows of dwelling-rooms; when the window is opened the inhabitants breathe air tainted by these sinks. Then the pipes and the sinks corrode, get out of shape, leak and render the walls damp and foul. But this is not the worst feature of the case. The slop water on reaching the bottom of the pipe does not go to a drain and to a sewer; it splashes into the yard; it slowly gravitates along a little gutter till it reaches the street gutter and thence goes to the nearest sewer. The process is well illustrated in the sketch of the house, No. 21, Quai Colbert. In this case the engraving, which is from a photograph taken in the back-yard, represents the back of the house that gives on to the street. The passage going under and through the house to the street is here seen, as are the slops from the dwelling within the yard flowing towards the street, but it will be noted that some stones and rubbish have fallen into the little gutter. This will check the flow of the slops and make them spread over the entire surface of the passage. The gutter itself is only a row of bricks laid flat against another row of bricks standing vertically so as to form a ledge. There is no cement used; between each brick the water can easily

FIG. 3.



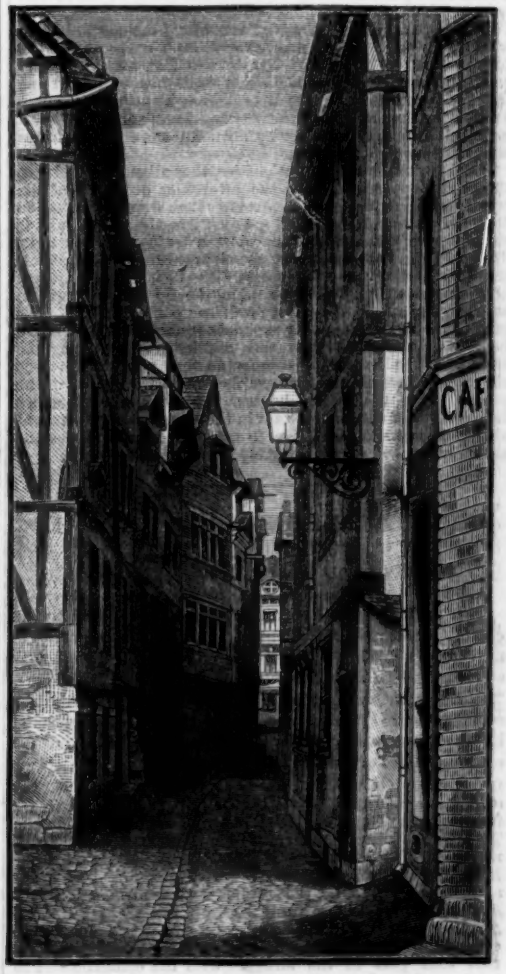
The Impasse des Corderies, in the Perrey District of Havre.

pass into the soil below, while the surrounding pavement is so loose that the stones move under the weight of the foot and often splash up from underneath black, fetid mud. At the back of this narrow little court there is a small house, in the front of which there is a sort of wooden shanty. Its floor is 40 centimetres below the level of the yard and the place measures 2·37 by 2 metres. In this place a man, a woman and five children lived for a whole year. They were miserably poor people and their domicile was so utterly unfit for human habitation that no one had the audacity to levy any rent for such premises. These people were discovered by the police when the latter came to remove a cholera patient from the house. They had remained there rent free for a whole year, but the authorities took them all off to the sanatorium. These people, who were living in the confined space of about 60 cubic feet per person, threw all their slops out on to the yard of No. 21, Quai Colbert. Even the tenant of the house in front found the space so confined that he built himself a sort of closet made of old planks, which is seen near the small first-floor window. Here was placed a wooden tub which served as a closet and which was emptied "when full"—that is, at no regular times. There is no water on these premises and of course no drainage beyond the surface-drainage shown in the picture. The pipe down the wall fills buckets with rain water from the roof when it rains, and if other water is wanted the inhabitants must go down the street and get it at the public fountain. Rents for single rooms in such houses vary from 7*s.* to 12*s.* per month.

Even smaller are the houses in the Impasse des Corderies, where some of the rare cases of cholera which occurred in the Perrey district of Havre took place. This is a small street through which there is no thoroughfare and which consists almost exclusively of wooden huts. Some of these huts have but one room and one floor, the ground floor, and several are inhabited by washerwomen. This accounts for the number of large tubs outside the huts. The rooms are very low and the door in some cases only four to five feet high, so that it is necessary to stoop to enter. In one of these little wooden houses I found an old woman busily engaged in washing, not her own linen, but that of other persons. Across the dark, low room linen was hung up to dry. The wooden walls were black with cakes of greasy, adhesive dirt. In a sort of closet cupboard, partitioned off from the room by badly fitting planks, were lumber, coal, rags &c. and a wooden tub. This tub served as the closet of the house and its fæcal contents spread foul odours throughout the hut. There were slops on all sides—on the black, dirty floor of the dwelling, stagnating on the bare earth outside the door, or slowly travelling along the central gutter of the alley which constitutes the main and only drain of the place. On the opposite side the *tinettes* or pails were placed under the staircases leading to the little upper rooms in the roofs. Most of the inhabitants of this wretched quarter were dressed in mere rags. There were a great many poles to hang up linen or fishing nets to dry, and yet there is no provision made to drain away the dirty water from the washing tubs and the domestic slop-pails.

This custom of draining into the gutter cannot be abolished in a day. People must drain somewhere, and if there are no sewers and no cesspools, then the slop water must go to the street gutter. But the extraordinary feature of the case is that there seems to be no power of enforcing the construction of a proper drain between each house and the gutter. The municipal authorities may wash the street gutters, may render them water tight with cement &c., but they cannot call upon the householders to build drains so that the water going to the gutter shall not sink into the subsoil of the house. For instance, I went with the town architect, M. David, to No. 28, Rue des Galions. There had been five cases of cholera in this one house. The police had gone there over and over again to clean the place out. Even the fire brigade had been brought on to the premises and they had so well washed out the stairs with the hose that a part of the rotting old structure had given way. A portion of the stairs had fallen in and the top floor could no longer be reached. Nevertheless, in spite of all this cleaning, we found the gutter that went through the passage from the back yard to the street blocked up and the slops, instead of flowing to the street, were stagnant under the house. In the Rue d'Albanie, which is but the continuation of the Rue des Galions, at No. 66, we visited the inner yard. It is half roofed over and measures only six feet by four feet; and in this confined space there were ten gaping sinks outside the windows. From one of the pipes of these sinks we saw fæcal matter oozing out. The house was six storeys high and the pail closet was at the very top of the stairs. The pail stood on loose-fitting planks, urine and other filth dripping through the chinks on to the stairs underneath. Next door, at No. 68, where there had been two cases of cholera, the pail closet was in the middle of the stairs and caused such foul odours that the tenants complained they could not keep either milk or soup, as it so soon turned sour. I was not surprised to hear at the Bureau d'Hygiène that the death-rate in this street (Rue d'Albanie), calculated on the average of the last ten years, amounts to 41·1 per 1000; but in the Rue du Petit Croissant the death-rate is 44·9 per 1000; and, as I have already stated on a previous occasion, it reaches the enormous proportion of 57·2 per 1000 in the Rue Marbonne, while in the broad, prosperous Rue François Premier it is only 12·03 per 1000.

FIG. 4.



The Rue des Rosiers, at Rouen.

At Rouen, Honfleur and most of the towns which I visited similar inequalities will be found. What, for instance, can be more abominable, but it must be confessed more picturesque, than the mediæval Rue des Rosiers at Rouen? Here the houses are several hundred years old and built in a great measure of wood and stand on redeemed marsh land. The street is very narrow, the houses very high and a central gutter constitutes the main drainage

system. At the top of each house, right up in the gable, is a pail. What is not put in this pail—and the pail is not often emptied—goes to the gutter in the centre of the street or sinks into the earth before reaching the gutter. Here and in the Rue du Mouton, which is a continuation of the same street, there have been, in proportion, the greatest number of cases of cholera. The pavement is rough, is saturated with filth, the houses are inhabited by very poor people and overcrowded. The same sort of description would apply to the slums of Honfleur. The very poor court, appropriately named l'Allée des Soupires, consists of houses where rooms are hired for 7s. and 8s. a month, where there is no drainage, but stones with dirty water between. The rooms are devoid of proper light and overcrowded. In one dark room I found five persons living together, one being an old invalid woman who had not left her bed for twenty-two years. The Pépinière Court at Honfleur consists of old mediæval houses with upper storeys that nearly touch each other across the narrow street. The doors, hardly five feet high, are very small, the windows are small, the walls out of line, some bulging forwards as if the houses were about to fall. The earth is black mud oozing out between loose stones; it is all very picturesque, very dirty, very unwholesome, and constitutes a suitable home for cholera.

Speaking to the various authorities, they all maintained that they had no powers to make the owners or occupiers of the houses construct drains. If street gutters were cemented so that the water in them could not sink into the subsoil, and if the subsoil of the houses was protected by laying water-tight drains in the houses to carry the slops to the street gutter, there would thus be cheaply established an open-air system of drainage which, whatever might be its inconveniences, would in any case protect the subsoil from contamination. This much at least could be very rapidly accomplished. It could be done in time for next spring, and by thus protecting the soil under the houses it is probable that a very important step would have been taken towards protecting the lives of the people living within the houses. If the local authorities really have not the power to act in this sense, the Government should immediately contrive to give the municipalities the means of removing such palpably insanitary conditions.

THE CONFERENCE ON CHOLERA IN ST. PETERSBURG.

(FROM OUR SPECIAL CORRESPONDENT.)

THE conference of Russian physicians summoned to the capital to discuss the recent epidemic of cholera and the measures to be adopted to cope with a renewed outbreak next summer held its first meeting on Sunday, Dec. 13th (25th). The conference would perhaps be more correctly described as a Government Commission; the members have been selected by the Government or its local representatives, and the meetings are held with closed doors. As already stated previous,[1] each Government or province throughout the empire is represented by one or two medical men, selected for the closeness of their personal experience of the epidemic. These official members number about 150; the remaining members of the Conference being representatives of the Ministries of the Interior, of War, of Finance and of Ways and Communications, the president and members of the Medical Council, the professors of the Army Medical Academy, the National Health Society, the senior physicians of all the St. Petersburg hospitals and the students who took part in the struggle with the epidemic.[2] The total number of members was thus brought up to nearly 300. The meetings of the Conference have taken place each evening in the Michael Palace, kindly lent for the purpose by the Grand Duchess Catherine Michaelovna. The sub-committees have met daily from 10 till 3 in the Medical Department of the Ministry of the Interior. The meetings, as already stated, have been quite private, no one not an actual member of the Conference being permitted to be present. The Director of the Medical Department has, however, kindly furnished me with copies of some of the more important communications, a brief summary of which may be of interest.

The Conference was opened by a speech from the Minister of the Interior, M. Durnovo, who welcomed the members and expressed the thanks of the Government for their self-sacrificing activity in the struggle with the epidemic.

Dr. Ragozin, the Director of the Medical Department and President of the Conference, gave an introductory address on the work to be done by the members, and was followed by Dr. Grebentschikoff, the head of the statistical division of the medical department, who read an important paper on the statistical data of the epidemic and its mode of propagation. The present epidemic, he said, is a continuation of a pandemic which began its course in 1881 and has since then spread to almost every country of the Old and New World. Starting in Hedjaz (the province of Arabia which borders the Red Sea), the cholera was carried by Mussulman pilgrims and in 1883 reached Lower Egypt, Syria and Mesopotamia on the one hand, while on the other the disease was spreading from its endemic centre in India to China and Japan. In 1884 it passed from Egypt to the northern shores of the Mediterranean Sea, affecting more particularly Toulon, Genoa, Naples and the Spanish province of Alicante, penetrating to Algiers and at the same time continuing its ravages in Japan. In 1885 cholera raged in Arabia, Syria, Mesopotamia, Egypt, Italy, France, Spain and Japan, and in 1886 it appeared in each of these countries and in Germany (Mayence), Austro-Hungary, and in the New World in the Argentine Republic and Chili. In 1887 having disappeared almost entirely in Europe and become much less severe in Turkey in Asia, South America and Japan, cholera appeared in Malta for the first time during the present pandemic, and also in New York. In 1888 it reappeared in Italy and Austro-Hungary, continued in South America, China and Japan, and appeared in the Philippine Islands (East Indies), and in Vladivostok (Eastern Siberia). In 1889 cholera was present in the Sunda and Philippine Islands, in Turkey-in-Asia, China, Japan, and also in Persia. In all these countries it remained for two years, and in 1890 attacked in addition the Corea, Vladivostok, Siam, Ceylon and Massowah. Finally, in the present year it crossed from Persia into Russia, and has since spread to Germany, Austro-Hungary, Belgium, Holland and France.

(To be continued.)

[1] Vide THE LANCET, Dec. 10th, 1892.

[2] A considerable number of fifth-year students were sent from St. Petersburg and from the University of Kharkof to the infected districts, more particularly to the country of the Don Cossacks and to the Caucasus.

THE DRAINAGE OF MIDDLE-CLASS DWELLINGS.

IT is only too probable that cholera may be brought over to England next spring. Will it take root in this country? Now is the time when everybody should put his house in order; it will be too late when once the epidemic is upon us. A great deal has been done with regard to the homes of the poor. These may be dirty and overcrowded, but there are not those vices of construction which still prevail—and this to an alarming extent—in middle-class dwellings. What with official and amateur sanitary inspection, the habitations of the poor are, technically speaking, often in a much better sanitary condition than those of the middle classes. For instance, a great portion of the working and poorer classes live in small cottages, with open space back and front, and with no closets or dustbins indoors. Even the scullery and the sink are in an outhouse. In fact, in many instances there is no drainage whatsoever within the dwelling portion of the cottage. The middle-class houses have, on the contrary, their closets, their sinks, their bath-pipes &c., indoors, and all these are sources of danger if they are not perfect in structure and ventilation. No philanthropists visit these middle-class dwellings to see if they are in a good condition; the sanitary inspector only comes if called or if there be an outbreak of infectious disease. Perhaps it may be said that the inhabitants are well enough educated and sufficiently intelligent to look after their own sanitation. Such unfortunately is not always the case, and where there is a disposition to set matters right there are often financial and other reasons which prevent the realisation of these good intentions.

Undoubtedly great care has been bestowed on the drainage

of the more modern middle-class dwellings. After all it does not cost more to drain well than to drain badly; but the details of good domestic drainage were not known to the generality of builders some twenty or thirty years ago. Consequently it is very probable that more than half the middle-class houses of London have defective drainage. Let us take houses with rents varying from about £30 to £100 a year. On entering the hall the staircase generally rises straight up in front. Passing by the parlour, we probably find a closet under the stairs. This closet very often has no ventilation. It has an opaque glass door and receives a little light from the window in the passage. If the wall of the closet is not against the wall of the next house, then, perhaps, one single brick has been removed and this small hole is called ventilation. In this latter case there is no reason why the hole should not be enlarged and converted into a window of at least eighteen inches square. But in the frequent instances where the wall cannot be pierced the closet must be removed and placed in front of the side window which as a rule faces the closet door. This may darken the passage, but that is preferable to ventilating the closet into the passage and the house. The closet on the first floor is likely to be better situated and to have a window; but the basement closet is often as badly placed as that under the stairs on the parlour floor. Then, when we proceed to examine the closets, it will be found that the old-fashioned D trap and pan container are still largely in use. Though in every text-book on sanitation this form of closet is unanimously condemned, it is nevertheless still employed throughout the country. Then, again, these closets, which can never be clean and never free from unpleasant odour, are supplied with water direct from the cistern. They have no water-waste preventers, but are connected directly with the cistern from which the drinking water is derived. Often these cisterns are so placed that they cannot be easily reached and are consequently but rarely cleaned. Finally, there are the drain pipes, which, especially in jerry-built houses, are laid down so carelessly that they leak at the joints.

Undoubtedly, in view of the probable cholera epidemic, every drain pipe in England should be tested at once. There are contrivances that can be thrown down and will promptly disclose the existence of a leakage; or else anyone can get some oil of peppermint and, mixing it in a bucketful of warm water, throw it into the highest closet. Where sewer-gas escapes through the drains there the odour of peppermint will also be detected. If this experiment were made in every home we fear that an appalling number of houses would be found to have leaking drains.

There is much evidence to show that the condition of the subsoil has great influence in determining the spread of cholera epidemics. Apparently if the subsoil is contaminated by a numerous population living on a spot inefficiently drained, there is a greater local susceptibility to cholera. What, then, will be the condition of dwellers in houses where the subsoil has for years been contaminated by the leakage from badly laid drain pipes? To cite but one out of many illustrations of this danger, M. Guérard, civil engineer, in his report on the great cholera epidemic of Marseilles in 1884, describes how in the poorest, dirtiest quarters of the town there were some streets almost entirely exempt from cholera. These streets only differed from the neighbouring streets inasmuch as they had sewers; consequently the slops and dirty water from the houses flowed rapidly away instead of sinking into the subsoil. But in England the slop and dirty water from the houses, instead of going at once to the sewer, too often in part escapes through leaking drain pipes into the subsoil immediately under the houses. In such cases it is not only necessary to dig up and relay faulty drain pipes, but the surrounding soil, which will be found in a filthy condition, must also be carried away and clean gravel put in its stead.

The urgency of immediately taking all these measures cannot be denied, and yet there are many practical difficulties to be overcome. Many occupants of middle-class houses dare not in any way vex their landlords. Many pay their rents irregularly, others could not afford to remove, and for many personal and financial reasons would be very reluctant to cause their landlords any inconvenience. The landlords themselves are often in anything but an enviable position. They have invested their money in houses, imagined these houses to be in a good condition and have rented them on certain terms. Now they may be called upon to spend £50 or £100 to redrain these houses. This may equal the loss of a year's rental or income. Of course every effort will be made to avoid such a sacrifice. Thus, what with tenants who do not like to trouble their landlords, and landlords who, as investors and speculators in house property, are sailing rather near the wind and therefore cannot afford to undertake large, unforeseen and expensive sanitary improvements, the causes of insalubrity described above are likely to remain unaltered. No general improvement will be effected unless sanitary authorities intervene. Here and there a liberal landlord or an enlightened tenant, possessing special knowledge of these questions and fully impressed as to their importance, may bring about the necessary alteration during the course of this winter. In the great majority of cases nothing will be done unless pressure is brought to bear by outside and disinterested persons. The best thing would be for each local authority to at once undertake a house-to-house visitation and do their utmost to compel those responsible in each case to relay the drains where leakage is detected, to provide inlet and outlet ventilation for the drains, to remove all D traps and pan containers, to place the cisterns where they can be easily inspected and cleaned and to provide each closet with a separate water-waste preventer flushing cistern. If this were done, and done at once, we might view with but little anxiety the recrudescence of cholera next spring.

THE LANCET RELIEF FUND.

FOURTH ANNUAL REPORT OF THE ALMONERS.

THE LANCET Relief Fund, which has for its Almoners the President of the Royal College of Physicians (Sir ANDREW CLARK, Bart., F.R.S.), the President of the Royal College of Surgeons (Mr. THOMAS BRYANT), the President of the General Medical Council (Sir RICHARD QUAIN, Bart., F.R.S.), Mr. THOMAS WAKLEY, F.R.C.S., and Mr. THOMAS WAKLEY, jun., L.R.C.P.Lond., with Sir HENRY PITMAN, M.D. Camb., F.R.C.P., as Honorary Auditor, came into operation on the 1st of February, 1889.

In presenting the fourth annual report, the Almoners think it well again to direct attention to the objects for which the Fund was established.

For the sustentation of the Fund the sum of at least £300 will be provided every January by the Proprietors of THE LANCET, and administered free of cost, for the purpose of affording immediate pecuniary assistance to registrable medical practitioners, or to the widows or orphans of members of the profession in cases of distress and emergency, by the grant of money by way of loans free of interest, or gifts, as the circumstances of the various cases may require.

When the Fund was inaugurated considerable misapprehension existed as to the precise objects for which it had been established; and as a result, the majority of the earlier applications, being cases of *chronic* distress, and not coming, therefore, under the designation of *emergency*, could not be entertained. Attention was called to this fact in THE LANCET of Feb. 16th, 1889, in the following words:—

"We are requested by the Almoners to state that, from the character of a number of the applications received, both personally and by letter, for relief, it is evident that in many cases the object for which this Fund has been established is not quite clearly understood; and if relief had been afforded in the cases of those who suffer from chronic distress, the Fund would have been completely exhausted within the first few days of its existence. They would therefore be greatly obliged if those readers of THE LANCET who may be asked to endorse applications would carefully peruse the Application Form and explain the precise object of the Fund to those applicants whose cases do not seem to come within the scope of the purpose for which the Fund has been established, which is to afford prompt aid to registrable medical practitioners, or to the widows or orphans of members of the profession who, in consequence of the supervention of some unexpected exigency which is not likely to recur, have pressing need of immediate and temporary pecuniary relief," and who, it

may once more be pointed out, are likely to be permanently benefited thereby.

The balance in hand at the end of 1891 amounted to the sum of £170 14s. On January 5th, 1892, the Proprietors of THE LANCET placed to the credit of the Fund the sum of £300. During the course of the year repayments to the amount of £5 have been made. The sum of £304 has been granted in relief either by way of loan or of gift, leaving a balance of £171 14s.

There have been considered altogether during the twelve months ending Dec. 31st, 1892, 34 applications for relief (the number the previous year having been 27). In 19 cases assistance was afforded, either as a loan or as a gift, according to the request of the applicant, the amounts of the grants ranging from two pounds (given on a special occasion and for a special purpose) to £50.

The following are extracts from a few letters received from some of the recipients of the Fund:—

CASE 120.—"Your kind gift from THE LANCET Fund I have safely to hand, and beg to tender my most grateful thanks for the kindness shown unto me in this my heavy bereavement."

CASE 121 (husband hopelessly insane).—"I beg to acknowledge the receipt of cheque for £25 from the Almoners of THE LANCET Fund, and I wish to express my most sincere and grateful thanks for this extreme benevolence and kindness. This timely assistance will indeed place me in a position enabling me to support our young family, and I do indeed most deeply appreciate this generosity. Should I ever be sufficiently successful in business to be able to do so, it will be my greatest desire to prove my gratitude for the present kindness by contributing to the Fund."

CASE 122.—"The substantial and prompt help which the Almoners have so benevolently accorded will prove of essential service in his great need. I called upon Dr. —— to-day and he begged me most earnestly to thank the Almoners for their kind and acceptable gift."

CASE 129.—"I thank the Almoners for their great kindness in granting me the loan, for which I enclose receipt. I can assure you it has come at a most opportune time, and I have no doubt will be a lasting benefit to me."

CASE 136.—"I beg to return my most sincere and heartfelt thanks for the gift of £15 and loan of £15 accorded to me by the Almoners of THE LANCET Relief Fund. This kindness will be a great boon in present circumstances and I shall ever feel grateful for it."

CASE 139.—"Although Mr. —— continues to improve satisfactorily he is not equal to writing, therefore asks me to do so for him to acknowledge your very kind letter received this morning with cheque for £20, kindly sent to him as a gift by the Almoners of THE LANCET Relief Fund in his great need and feeble health. No words of his or mine can sufficiently express the deep gratitude we both feel for the great goodness extended by them to us, and we can only hope and pray that our Heavenly Father may return it to each of them individually tenfold, for it is indeed a most noble and Christian act."

CASE 147.—"Will you please express my best thanks to the Almoners of THE LANCET Relief Fund for their goodness in granting me a gift of £10. I feel very grateful to them; it will help me and my children very much at the present time."

CASE 144.—"I received your kind letter with cheque for £10 enclosed, for which I beg you will convey to the Almoners my sincere thanks. It has indeed come at the time when I most needed it to enable me to still keep my house and home together. I trust God will reward those who have so kindly helped me in the time of need. ..... The £10 will now enable me to keep on the house and have all my furniture saved."

CASE 149.—"I beg to acknowledge the receipt of £10 and request you to kindly convey to the Almoners my most sincere thanks. I owe them a debt of everlasting gratitude as I shall now be able to make a fresh start in life."

CASE 150.—"Allow me to tender my sincere thanks to the Almoners of THE LANCET Relief Fund for the gift of £5. Indeed it was extremely kind of them to help a foreigner in distress far from his kindred. You can imagine better than I can express my heartfelt gratitude for their kindness."

It will be observed that Case 121 speaks of her desire to prove her gratitude by (if possible) at some future time contributing to the Fund. During the course of last year the Almoners received a cheque which a medical practitioner kindly forwarded as a donation to the Fund. This of course had to be returned with expressions of thanks and regret that the Almoners were unable to avail themselves of the contribution. It may be well therefore to direct attention to the fact that the means of sustentation of the Fund are provided solely by the Proprietors of THE LANCET. The Secretary of the Fund is Mr. Edward Davies, to whom all communications should be addressed.

(Signed)

ANDREW CLARK, THOMAS WAKLEY,
THOMAS BRYANT, THOMAS WAKLEY, JUN.
RICHARD QUAIN.

Statement of Accounts for the Year ending Dec. 31st, 1892.

DR.

	£	s.	d.
To Balance at Bank, Jan. 1st, 1892	170	14	0
,, Proprietors of THE LANCET	300	0	0
,, Repayment of Loans:—			
Case No. 23 ... ... £2 10 0			
,, 25 ... ... 2 10 0			
	5	0	0
	£475	14	0

CR.

	£	s.	d.	£	s.	d.
By Loans:—						
Case No. 118	50	0	0			
,, 129	25	0	0			
,, 133	22	0	0			
,, 136	15	0	0			
,, 145	25	0	0			
				137	0	0
By Gifts:—						
Case No. 120	10	0	0			
,, 121	25	0	0			
,, 122	10	0	0			
,, 125	15	0	0			
,, 126	10	0	0			
,, 135	2	0	0			
,, 136	15	0	0			
,, 139	20	0	0			
,, 141	5	0	0			
,, 144	10	0	0			
,, 146	10	0	0			
,, 147	10	0	0			
,, 149	10	0	0			
,, 150	5	0	0			
,, 151	10	0	0			
				167	0	0
By Balance at Bank Dec. 31st, 1892				171	14	0
				£475	14	0

I find by the Bankers' Book that the actual balance on Jan. 1st, 1892, to the credit of the Fund was £170 14s., to which the sum of £300 was added by the Proprietors of THE LANCET on Jan. 5th, 1892.

The balance at the Bankers' at the present date is the sum of £171 14s. I have also checked the receipts for disbursements and find the above account strictly accurate.

December 30th, 1892.

HENRY A. PITMAN, Hon. Auditor.

FORRES LEANCHOIL HOSPITAL.

THIS cottage hospital has been constructed for Forres and the surrounding district, which has a population of upwards of 10,000, the town population being about 5000 The hospital owes its erection mainly to the munificence of Sir Donald A. Smith, K.C.M.G., LL.D. Camb., a native of Forres, but now of Montreal, Canada.

The designs for the building, originally planned by the late Mr. John Rhind of Inverness, were submitted by the managers to Mr. H. Saxon Snell to report upon, but in consequence of the decease of Mr. Rhind before the working drawings were in hand, Mr. Snell was asked to make such modifications in the design as he thought desirable and to superintend the carrying out of the work.

The principal entrance to the hospital is through the centre of the front block, a two-storey building, containing on the ground floor the matron's and surgeon's rooms, operating room, kitchen and offices, and on the first floor bedrooms for the matron and nurses. At each side of this central building and separated from it by the connecting corridors hereafter referred to are blocks one storey high, containing the sick wards, each having one ward for the accommodation of four beds, and another for two beds. Behind the central block is a one storey building containing the laundry and also the mortuary and ambulance shed. At some distance in the rear of the present building it is proposed to erect at some future time a pavilion for fever cases as shown above by the small bird's-eye view.

Accommodation is provided in the building now erected for 12 patients. The larger wards, containing 4 beds each, are 24 feet long by 20 feet wide and 13 feet high, giving a superficial area of 480 feet, or about 120 feet per bed, and a cubic space of 6240 feet, or 1560 feet per bed. The smaller wards for 2 beds each are 13 feet long by 20 feet wide, giving a superficial area of 260 feet or 130 feet per bed, and a cubic space of 3380 feet, or 1690 feet per bed. The lineal wall space given to each bed is 12 feet in the larger and 13 feet in the smaller wards.

The wards are warmed by ventilating stoves specially designed for the building with inlets through the walls for the admission of fresh air to them. The day rooms and corridors are warmed by "Galton stoves." Fresh air is admitted to the wards through the stove casings, in which it is warmed, and through air shafts in the walls, which have adjustable hopper arrangements for the admission of the air at a height of 10½ feet to the under side of the hopper above the floor, by means of which the air has an upward impulse imparted to it which tends to prevent its sudden descent as a draught. These hoppers, of which there is one to each bed, can be closed at will. The foul air has its exit through ventilators in the roof.

The floors are of ordinary joisting with hard Canadian maple flooring in 3 in. widths, wax polished and with deal counter floors between them and the joisting.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

County of Surrey.—Dr. Seaton, the county health officer, has issued a somewhat voluminous report, much of which has mainly a local interest. He points out that there has been great improvement in the preparation of the statistical returns by the several medical officers of health, and he tabulates these at length. But he does not think that the statistics as yet cover a sufficient term of years to justify his drawing deductions from them. Dr. Seaton has held no less than thirty-six conferences with a view to securing isolation hospitals for the county, but we believe that with one exception no substantial advance has as yet been made in this direction. In an appendix are included the analyses of the several local reports, and it is stated that Dr. Seaton's own report on the county will appear as a separate document.

West Sussex Combined Districts.—This well-known combination of sanitary districts, which is under the care of Dr. Charles Kelly, now contains a population of over 106,000; it had, as a whole, during 1891 a birth-rate of 27·3 and a death-rate of 16·4 per 1000 living, the latter rate not taking account of visitors to such places as Worthing and Littlehampton. The zymotic rate was 1·5 per 1000, and it is stated that by the addition of the Horsham urban district at the end of last year the compulsory notification of infectious diseases is now universal throughout the combined area. Dr. Kelly's report, which covers no less than 215 pages, deals separately with each of the eleven sanitary districts involved, and the vital statistics are considered in some detail both for the district as a whole and for each of its constituent parts.

Basford Rural District.—Dr. James S. Tew reports that during 1891 the general death-rate was 16·4 per 1000, and he discusses the various aspects of the vital statistics at some considerable length. Referring to the notification of infectious diseases, he laments the absence of means of isolation, but he states that even with this drawback and with the added one of an insufficient inspectorial staff a large number of instances have been brought to light by the aid of notification which have admitted of the application of valuable remedial measures. No less than 252 cases of scarlet fever with nineteen deaths took place, and the prevention of the disease was much hindered by the absence of a hospital. Improvements are in progress as to water-supply; drainage works, which need to be pushed, are at least under consideration; public scavenging is on the whole a distinct success; and the current work of the district is evidently as well maintained and as well supervised as is practicable with the existing staff.

County of Renfrew.—Dr. Campbell Munro's first annual

report on the health and sanitary condition of the county of Renfrew is, as it should be, a very complete and exhaustive document. It enters fully into all the various health and other allied considerations affecting the county, and it may be taken as intended to serve as the basis for future work, and as affording a means by which comparison can be made in the future between what now exists and that which will be brought about as the result of a careful and skilled sanitary administration. The county starts with substantial means for the isolation of the infectious fevers, and it has local advantages in being a well-watered district, which should lead to the abandonment of existing suspicious supplies in favour of wholesome and properly delivered services. Drainage is a subject which will involve much labour, especially in connexion with the existing pollution of streams and the actual circumstances of individual localities and villages. The state of the county as regards infectious diseases having been considered, the several administrative questions involved in such matters as dairy inspection, control of slaughter-houses, bakehouses and common lodging-houses are discussed, and a series of tables together with a disease chart are appended. The report, in fact, is typical of what such an initial report should be.

Halifax Urban District.—Mr. Ainley records a death-rate of 22·6 per 1000 during 1891, the corresponding zymotic rate being 1·91. The infantile mortality for children under one year of age gave a death-rate of 172 per 1000 births. This is excessive, but it hardly seems related to factory labour by mothers, for of 660 deaths under five years of age, the mothers were in 517 cases engaged in domestic work at home, only 50 having to leave their homes for any kind of labour. A new infectious hospital has now been decided on and 111 cases were admitted into the existing one during the year. Good work has been undertaken as regards artisans' dwellings and house-to-house inspection is maintained. But improvement is strongly called for with respect to the removal of house and other refuse.

Fulham Parish.—This district had a general death-rate of 19·7 during 1891. The cases of notified disease were 330 in number, and of these 73 were cases of diphtheria and 55 of enteric fever. These notifications led to a large amount of remedial work as regards drainage, nuisances &c. The report deals very largely with general questions, such as memoranda of the Local Government Board and conferences of health officers on the subject of the Housing of the Working Classes Act, 1890; but it also contains a good deal of information as to the principal sanitary circumstances of Fulham and as to its wants. The record given by Mr. Cooney as to powers, duties and modes of action to secure amendment as regards unhealthy areas and dwellings is a useful one for local purposes.

City of Dublin.—Omitting deaths of persons in public institutions who came from places outside the city, the death-rate during 1891 was 25·5 per 1000. Sir Charles Cameron points out that whilst typhus fever has almost disappeared from Dublin, enteric fever shows no tendency to decline. A mean of some 42 deaths from this cause occurred annually from 1881 to 1888, then the number rose to 71 in 1889, it was 47 in 1890 and in 1891 it reached no less than 172. The causes of this maintained prevalence are held to be obscure, but pollution of subsoil and defective means of drainage in the case of a city built on a waterlogged site are set out as prime factors, and Sir Charles Cameron seems convinced that the city water collected from so sparsely populated a catchment area cannot be at fault, neither is any evidence suggested as to the possibility of pollution of some main water carrier, whether running full or not. The whole subject of the etiology of enteric fever is fully discussed in the volume, which has in consequence considerable interest.

County of Lancaster.—Mr. Sergeant has issued a somewhat voluminous report on this county during 1891, the volume containing summaries of all the local health officers' reports. Comparative statistics are displayed in a way that must have local value, and the incidence of the several infectious fevers in the different portions of the county is considered in some detail. Notification is now in operation in seventy urban and fifteen rural districts; but hospitals for infectious diseases are much needed and it is evidently Mr. Sergeant's opinion that such hospitals, to be of real use, must keep their ordinary wards free in so far as cost to those occupying them is concerned. In replacement of the old midden-privy system we find that the pail system, waste-water closets and the ordinary water-carriage system are in a number of places gradually coming into operation. Questions of scavenging, water-supply, sewerage &c. are discussed under several headings, and it can hardly be that such comparative data as are afforded by this and other means can be in the hands of the public and of the local sanitary authorities without serving as a stimulus to those who see that satisfactory results have followed in those districts where most sanitary progress has been made.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5293 births and 4751 deaths were registered during the week ending Dec. 31st. The annual rate of mortality in these towns, which had been 20·7 and 20·0 per 1000 in the preceding two weeks, rose again last week to 24·3, a higher rate than in any week since March last. In London the rate was 22·4 per 1000, while it averaged 25·7 in the thirty-two provincial towns. The lowest rates in these towns were 15·7 in Croydon, 16·2 in Huddersfield, 17·5 in Portsmouth and 17·8 in Burnley; the highest rates were 31·9 in Liverpool, 32·0 in Blackburn, 34·0 in Salford and 34·1 in Manchester. The 4751 deaths included 473 which were referred to the principal zymotic diseases, against 448 and 383 in the preceding two weeks; of these, 168 resulted from measles, 103 from whooping-cough, 73 from diphtheria, 54 from scarlet fever, 36 from diarrhœa, 36 from "fever" (principally enteric) and 3 from small-pox. No fatal case of any of these diseases occurred last week in Burnley, Huddersfield and Halifax; in the other towns they caused the lowest rates in Derby and Wolverhampton, and the highest rates in Hull, Cardiff, Brighton, Nottingham and Salford. The greatest mortality from measles occurred in West Ham, Cardiff, Bolton, Nottingham, Brighton, Hull and Salford; from scarlet fever in Preston; from whooping-cough in Swansea, Nottingham, Bradford, Portsmouth, Birmingham and Salford; from "fever" in Sunderland and Nottingham; and from diarrhœa in Preston. The 73 deaths from diphtheria included 50 in London, 3 in Cardiff, and 3 in Manchester. One death from small-pox was registered in Manchester, 1 in Salford, and 1 in Oldham, but not 1 in any other of the thirty-three large towns; 39 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and not one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3254, against 3772, 3626 and 3299 on the preceding three Saturdays; 246 new cases were admitted during the week, against 291 and 241 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 339 to 360 in the preceding two weeks, further rose to 523 last week, but were 90 below the corrected average. The causes of 136, or 2·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Bolton, Sunderland, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Blackburn, Halifax and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 25·5 and 24·0 per 1000 in the preceding two weeks, rose again to 28·5 during the week ending Dec. 31st, and exceeded by 4·2 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·2 in Perth and 18·2 in Greenock to 32·2 in Paisley and 34·9 in Leith. The 793 deaths in these towns included 86 which were referred to measles, 17 to whooping-cough, 9 to diphtheria, 7 to scarlet fever, 7 to diarrhœa, 5 to "fever" and not one to small-pox. In all, 131 deaths resulted from these principal zymotic diseases, against 136 and 132 in the preceding two weeks. These 131 deaths were equal to an annual rate of 4·7 per 1000, which was 2·3 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had declined from 112 to 86 in the preceding four weeks, were again 86 last week, of which 41 occurred in Glasgow, 15 in Leith, 14 in Edinburgh and 11 in Dundee. The deaths referred to whooping-cough, which had been 5 and 11 in the previous two weeks, further

increased to 17 last week and included 13 in Glasgow. The 9 fatal cases of diphtheria corresponded with the number in the previous week and included 6 in Glasgow. The deaths from scarlet fever, which had been 18 and 13 in the preceding two weeks, further declined to 7 last week, of which 5 occurred in Glasgow and 2 in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 198 and 168 in the preceding two weeks, rose again last week to 212 and exceeded by 9 the number in the corresponding week of last year. The causes of 49, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 22·8 to 26·7 per 1000 in the preceding five weeks, further rose to 33·4 during the week ending Dec. 31st. During the thirteen weeks of the last quarter the death-rate in the city averaged 24·4 per 1000, against 18·4 in London and 23·9 in Edinburgh. The 224 deaths in Dublin during the week under notice showed an increase of 45 upon the number in the preceding week, and included 5 which were referred to diarrhœa, 4 to "fever," 2 to whooping-cough, 1 to measles, and not one either to small-pox, scarlet fever, or diphtheria. In all, 12 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·8 per 1000, the zymotic death-rate during the same period being 2·2 in London and 3·5 in Edinburgh. The fatal cases of diarrhœa, which had declined from 3 to 1 in the preceding three weeks, rose again to 5 last week. The deaths referred to different forms of "fever," which had increased from 2 to 9 in the previous three weeks, declined to 4 last week. The 2 fatal cases of whooping-cough exceeded the number recorded in any recent week. The 224 deaths registered in Dublin last week included 25 of infants under one year of age and 71 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase, and those of elderly persons considerably exceeded those recorded in any recent week. Thirteen inquest cases and 7 deaths from violence were registered; and 80, or more than a third, of the deaths occurred in public institutions. The causes of 15, or nearly 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

SURGEON-CAPTAIN BEATTY has arrived at Sierra Leone and Surgeon-Captain McLoughlin has left for England. Surgeon-Captains Mills and Squire have left Madras on completion of their tour of service. Surgeon-Major Emerson and Surgeon-Captain Robinson have obtained leave from Madras and Surgeon-Lieutenant-Colonel Macrobin has been transferred to Kassauli. Surgeon-Lieutenant-Colonel Bridges has obtained leave of absence from Weedin and Surgeon-Major Hodson from Portsmouth. We understand that Surgeon-Colonel T. Maunsell will probably be appointed to fill the caused vacancy in India by the death of Surgeon-Colonel Godwin.

ARMY MEDICAL SERVICE.

Surgeon-Colonel Preston has been selected for the appointment of Principal Medical Officer for the China Station and leaves shortly for Hong-Kong.

MILITIA MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Sir William Miller, Knt., M.D., the Londonderry Artillery (Southern Division, Royal Artillery), retires, with permission to retain his rank and to wear the prescribed uniform on his retirement (dated Jan. 4th, 1893).

INDIA AND THE INDIAN MEDICAL SERVICES.

The undermentioned Surgeon-Lieutenants appointed to the Bengal Establishment reported their arrival at Bombay on Nov. 1st, 1892:—Patrick Balfour Haig, Thos. Wm. Archer Fullerton, Ralph Henry Maddox, Harry George Melville, Arthur Oldham Hubbard, Herbert Austen Smith, George McIver Campbell Smith and Joseph George Hulbert. The undermentioned officers have returned from furlough out of India:—Squadron Officer M.L. Surgeon-Captain G. C. Hall, I.M.S., and Surgeon-Captain P. C. H. Strickland, I.M.S. Under instructions from Army Headquarters, India, it is notified for information that the undermentioned officer of the Army Medical Staff, expected from England for duty in India, has been posted to the Bombay Command:—Surgeon-Major J. Fitzgerald Brodie, in augmentation of establishment. Medical Staff-Surgeon-Captain R. Holyoake has been granted leave to remain in England from Nov. 26th, 1892, to May 25th, 1893, in extension of the leave. Surgeon-Captain H. W. Elphick, Officiating Civil Surgeon, on being relieved by Surgeon-Captain W. G. P. Alpin, has been transferred from Ghazipur to Muzaffarnagar. Surgeon-Major A. F. Ferguson, M.B., C.M., has been appointed to act as Civil Surgeon, Shikarpur; and C. J. Sarkies, M.B., C.M., to act as Civil Surgeon, Ahmednagar, in addition to his own duties, during the absence of Surgeon-Major W. G. H. Henderson, F.R.C.S.I. Veterinary-Lieutenant G. H. Evans is appointed to the Civil Veterinary Department on probation and posted to Burma. Surgeon-Captain J. G. Jordan, Officiating Civil Surgeon of Jessore, is appointed to act as Civil Surgeon of Noakhali, during the absence, on deputation, of Surgeon-Lieutenant-Colonel Kali Pada Gupta, or until further orders. This cancels the notification of Nov. 22nd, 1892, appointing Surgeon-Major G. Shewan to officiate as Civil Surgeon of Noakhali. Surgeon-Captain P. W. O'Gorman is appointed to act as Civil Surgeon of Jessore. Surgeon-Lieutenant-Colonel E. Bovill, Officiating Civil Surgeon of Murshidabad, is appointed to officiate as Civil Surgeon of Shahabad during the absence, on leave, of Surgeon-Major R. Macrae, or until further orders. Surgeon-Lieutenant-Colonel S. L. Dobie, I.M.S., Superintendent, Lunatic Asylum, Madras, is appointed to act as Principal Medical Storekeeper, Madras, during the employment of Brigade-Surgeon-Lieutenant-Colonel D. F. Bateman on other duty. The services of Surgeon-Major T. R. Macdonald, Superintendent of the Nagpur Central Gaol, are placed permanently at the disposal of the Government of Bengal. Surgeon-Colonel John Chas. Morice, Principal Medical Officer, Presidency District, has been permitted to retire from the service from Oct. 24th, 1892, subject to Her Majesty's approval.

NAVAL MEDICAL SERVICE.

Fleet-Surgeon Joseph Wood, M.D., has been placed on the Retired List of his rank at his own request.

VOLUNTEER CORPS.

Artillery: Surgeon-Lieutenant M. Mackenzie to be Surgeon-Captain (dated Jan. 4th, 1893).—1st Gloucestershire: Surgeon-Lieutenant-Colonel F. P. Lansdown resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement (dated Jan. 4th, 1893).

On Dec. 14th, 1892, the third levée of H.E. Lord Harris, G.C.I.E., was held in Bombay. Among the 624 presentations made were the following members of the medical profession:—Arnott, Brigade-Surgeon-Lieutenant-Colonel; Banks, Brigade-Surgeon-Lieutenant-Colonel; Boyd, H. W., Surgeon-Major; Child, Surgeon-Captain; Crimmin, Surgeon-Captain; Cuffey, Surgeon, R.N.; Day, J., Surgeon-Major; Dimmock, H. P., Surgeon-Major; Edmonds, G., Surgeon, R.N.; Fooks, Surgeon-Major; Grayfoot, Surgeon-Captain; Herbert, H. Surgeon-Captain, I.M.S.; Hajel, Surgeon-Captain, I.M.S.; MacCartie, Surgeon-Major; Maconachie, G. A., Brigade-Surgeon-Lieutenant-Colonel; Mills, J., Veterinary-Surgeon; A.V.D.; Meyer, Surgeon-Captain; Parker, J., Surgeon-Major; Riddie, Surgeon-Lieutenant-Colonel; Underwood, E. T., Dr.; Waters, G., Surgeon-Lieutenant-Colonel.

ARMY MEDICAL CHANGES.

Under the above heading our contemporary the *Army and Navy Gazette* has some remarks on the difficulties that exist at present in arranging for the various changes and reliefs at home and abroad, and is of opinion that much of the disturbance of *personnel* might have been avoided if the original warrant had been adhered to and extension of service had only been granted when it was distinctly required in the interest of the public service and the officer had in such cases been seconded. In two years about thirty out of thirty-four administrative officers will have changed stations. We cannot believe that there is any foundation for the rumour that the present principal medical officer at Gibraltar will be brought home from that station to fill a vacancy that will occur in the Director-General's office at home. We need scarcely reiterate what we have so often said—viz., that, in our opinion, any extension of service in the administrative grades should be quite exceptional and that the officer so extended should be seconded. Any other system can only prove very unfair to

those officers who are calculating on the promotion to which they would be entitled if the regulations were strictly adhered to.

MANLICHER RIFLE BULLET WOUNDS.

A Chilian officer, Colonel Talavera, who has been studying medicine, has published as his graduation thesis a study of the wounds inflicted by the Manlicher bullet. His experience leads him to the conclusion that the track made by the bullet through soft parts only has a circular section corresponding more or less exactly to that of the bullet. In these cases there are no foreign bodies found in the track and the wound generally heals without suppuration in from five to ten days. When the end of a long bone is struck a number of splinters are produced and the wound takes a long time to heal. Sometimes, however, the bullet makes a clean perforating wound through the bone and then ten days may suffice for a cure. Where the shaft of a long bone is hit at a short distance the effects may be described as "explosive." When the bullet enters the thorax it sometimes becomes embedded in the lung and remains quiescent there, giving rise neither to an abscess nor to empyema.

THE SCIENTIFIC STUDY OF INDIAN DISEASES.

Surgeon-Lieutenant-Colonel Roe, I.M.S., who has been studying for some time in Paris and Germany, leave having been granted him for that purpose by the Indian Government, has returned to India and proceeds to Sialkot. In Paris he practically investigated the method of inoculating against hydrophobin, and both there and in Germany he studied the latest methods of bacteriological research and inquired into all the latest hygienic improvements introduced into the French and German armies; consequently this officer should be in a position to carry out and apply the results of his labours to the pathological and bacteriological investigation of Indian diseases. It is understood that Surgeon-Lieutenant-Colonel Roe has taken a complete bacteriological laboratory with him to India.

THE SICKNESS AT PESHAWAR.

According to the last accounts from India the epidemic of fever which has prevailed so extensively of late at this station had shown marked signs of abatement. The ineffective state of the garrison, attributable to sickness at the time of Lord Roberts' visit, is described as something quite exceptional. Officers, non-commissioned officers and men were attacked and the number of soldiers in hospital or on the sick-list was unusually large. The British regiments which suffered so much have been removed from Peshawar and a medical inquiry is taking place at present into the nature and causes of the disease.

Correspondence.

"Audi alteram partem."

THE LATE DR. WALSHE.

To the Editors of THE LANCET.

SIRS,—Whilst the name of Dr. Walshe is still fresh in the memory I should consider it a privilege if you would allow me to occupy a few lines in order to say how thoroughly I can endorse all that his biographer has related of him in your columns. This wish arises from no evanescent feeling aroused by the sorrow of his loss, it having been a life-long conviction with me that, regarded from all points of view, there was no more distinguished man in our profession than Dr. Walshe. In the early part of my career, having perused some of his writings and compared them with the looseness and unsatisfactory conclusions of much of the contemporary medical literature, I naturally looked upon him as the "coming man." This opinion grew stronger after the publication of his model books on chest diseases. I was therefore always waiting in expectation of seeing him take not only his right position in the profession, but blazing forth like a luminary as a leading representative of medicine in the world at large. As years went on I never lost my faith, but was forced to add to it grievous disappointment at not seeing my anticipations realised. Personal reasons, such as delicate health, can have been the only cause of the want of recognition of Dr. Walshe as one of the great leaders of the profession. I had unfortunately only a slight personal acquaintance with him, but whenever we did meet I was always charmed. His mental powers were certainly of a very remarkable kind, for he not only had a spark of the heavenly fire of which he speaks in his paper on "Genius," but he was possessed of faculties which rarely accompany it—precision and power of observation, which are the great characteristics of the scientific man. This combination of talents which are generally considered incompatible was present in a most remarkable manner in the case of Dr. Walshe. One of your correspondents has called attention to the "Society of Observation" which Dr. Walshe founded, and he further gives the names of many of its members now living; he also speaks with uncertainty as to the date of its dissolution and the home of its records. Some of the gentlemen mentioned will be able, I should think, to afford the required information, but if not, assuredly the secretary, Dr. Ballard, would be able to do so. Being at present away from home I am unable to verify my statement, but I believe Dr. Ballard was, the writer or compiler of the little book issued by the Society and entitled "What to Observe." It was quite at the close of the Society's existence that I was requested to join and therefore only attended two or three meetings. This was, if my memory serves me right, in the year 1854. Its dissolution took place from the exigencies of increasing private practice and hospital work required of its members. The Society was the literal exponent of Dr. Walshe's views, its object being the obtaining more accurate reports of cases than had hitherto been attempted by noting down every particular, however apparently trivial, and so keeping the mind quite unbiased by any foregone conclusions. The method, it need scarcely be said, was most irksome; to some it seemed purposeless and often ludicrous. I may mention an example. The human body was divided out with capital letters and subdivided by smaller ones. At one of the last meetings a member was reading a case of some cerebral disease when he came to the big letter signifying abdomen and the little letter signifying bowels, and reported the usual action on that day. He was stopped by the President and asked if he knew this personally as a fact, and, the answer being that he was only informed of it by others, he was requested to make a query to this item of the report. The reading went on until the same letter was again reached, when the same statement was made, with the assuring interpolation of the reporter that he saw the patient go to the closet. "But," said Dr. Walshe, "did you follow him to obtain accurate knowledge of the result?" This was a little too much for the meeting and raised a general laugh. The method adopted by the President was no doubt the correct one, and the dissolution of the Society would have to be regarded as a loss to medicine did we not know that the system of reporting is now carried on in the most perfect manner at most of the hospitals.

From what I knew of Dr. Walshe, and looking upon his varied abilities, whilst viewing him in many other aspects, I recognised during his lifetime no greater man in our profession.

I am, Sirs, your obedient servant,

Jan. 3rd, 1893. SAMUEL WILKS.

THE LATE SIR RICHARD OWEN.

To the Editors of THE LANCET.

SIRS,—The admirable leading article on the late Sir R. Owen, and the late Dr. Walshe, which appeared in THE LANCET of Dec. 24th, makes a brief allusion to his attitude towards Darwinism. It is a puzzling study to endeavour to make out his precise opinion of the great doctrine which has effected, and is effecting, such a stupendous revolution in human thought. When the famous review of the "Origin of Species" appeared in the *Quarterly* from the pen of the late Bishop Wilberforce it was generally considered that the scientific "points" of that truculently hostile essay had been supplied to his lordship by Owen. It appears probable that subsequently Owen's views were considerably modified and that he gave at least a qualified adherence to the new view of life and existence. Many of his contemporaries thirty years ago were somewhat in the state of mind of Carlyle, who cursed Darwin's theory, yet (*pace* Froude) "greatly feared it would turn out true." It is not unlikely that to some extent Owen was under the pressure of influence in a high quarter which was brought to bear on him for the purpose of keeping him steady in the ranks of orthodox theology. Such influence as is here indicated was not unfelt by Sir Charles Lyell and much resentment was shown when that eminent geologist crossed the rubicon and became an avowed supporter of the new doctrine. Such a confession of faith was regarded as deser-

tion meriting social ostracism, the punishment being often specially directed against the fairer members of a deserter's household, who were made to feel that it was little short of criminal to be related to men professing a belief in the pithecoid ancestry of man. Again, the circumstances of the signal discomfiture which Owen sustained at the hands of Mr. Huxley in their controversy on the relative size of the posterior cornu and hippocampus minor in the brain of man and ape would not have weakened any reluctance which Owen might have felt to joining a camp whose most redoubtable combatant was the author of "Man's Place in Nature." Owen also had been brought up in strictly evangelical principles and would have hesitated long and poignantly before abandoning dogmas and beliefs hallowed by the tenderest associations for the extreme alternative of professing a thorough accord with Darwin, who when asked pathetically in a letter from Lyell, "Have you nothing to say consolatory to the dignity of man?" replied, not in the words of Goethe, "We bid you hope," but in the one word "Nothing." A life and letters of Sir Richard Owen will probably be soon forthcoming to tell us more than we now know of his views on the doctrine of evolution.

I am, Sirs, yours truly,

West Brighton, Jan. 2nd, 1893. W. W. J.

"SOME EFFECTS OF WOUNDS OF THE HEART."

To the Editors of THE LANCET.

SIRS,—The annotation under the above heading which appeared in THE LANCET of Dec. 31st, page 1521, brings under notice one of the most important questions in medical jurisprudence and one around which centre many important historical associations. In considering the subject I think the natural division of such wounds is—(1) Wounds of the ventricles, and (2) wounds of the auricles, these being subdivided into (*a*) penetrating and (*b*) non-penetrating. Such an arrangement seems to have been followed by the older writers, commencing with M. Morand, whose work, "Observation sur une Place du Cœur," was published in 1735. Garé noticed ("Opera Omnia," liber viii., chapter viii.) that wounds of the ventricle cause death slowly. The great significance of this is dealt with and clearly shown by Beck in his "Jurisprudence." Baron Dupuytren gives Latour's case of "a ball extracted from the right ventricle near to the apex of the heart, and partly covered by the pericardium" six years after the injury was inflicted. William Harvey found a bullet in the heart of a stag. Even wounds that penetrate the auricle are not necessarily suddenly fatal. Dr. Grace of Fife's case lasted two days after puncture of the right auricle, and Surgeon Billy's case—wound of the right ventricle—survived five days, the longest period on record that I know of. Death may, however, very suddenly result from the wound, for, although the Duc de Berry survived his injury some hours, King Henry IV. died almost immediately from the stab of the assassin Ravaillac. A very slight puncture of the auricle may quickly cause death. Two such instances are on record: (1) The Sardinian nobleman's case, in 1728, at the Court of Victor Amadeus; and (2) that of Admiral Villeneuve, who on April 22nd, 1806, killed himself by piercing the right auricle of his heart with a fine needle. But perhaps the most remarkable case on record is that reported in the *Manitoba Lancet*, vol. i., and copied by me in my article "The Literature of Punctured and Lacerated Wounds of the Heart,"[1] in which an attempt was made to remove by operation a needle from the interior of the right ventricle of a medical student. The operation was unsuccessful, but the manipulation of the heart displaced the needle from the position in which it was causing great distress, and for years the patient suffered no inconvenience.

I am, Sirs, yours truly,

Dublin, Dec. 31st, 1892. GEORGE FOY, F.R.C.S.I.

"THE TREATMENT OF SEVERE CASES OF CLUB-FOOT."

To the Editors of THE LANCET.

SIRS,—The discussion raised by Mr. Edmund Owen's paper is a very interesting one and affords an opportunity of once more advocating the forcible correction of club-foot by means of the Thomas wrench. By this instrument the most intractable cases are materially benefited and, if properly used, there is no occasion for slough or abrasion. I have now treated over thirty cases of the severest types of talipes, in patients whose ages varied from six to twenty-three years, with most encouraging results. In some of them I have compared the progress of excision of the astragalus of the one foot with mere forcible wrenching of the other. In each case the result obviously favoured the conservative method. By stretching the foot the structures yield in the precise order of their tension and, if carefully performed, the skin need never be ruptured. The secret of success lies in the frequent renewal of the effort before the structures have had sufficient time to recover from the strain. Pressure upon suitable splints should be rigorously applied in the intervals between the stretching. It is instructive to note the mobilising power of the wrench. A patient appears with a foot upon which the hand can scarcely make any impression. The wrench is applied, exercised and withdrawn. If it has been effective the surgeon has no difficulty in freely moving the stretched foot into positions which were before impossible. Having had experience of several cases of tarsectomy, I can confidently recommend the routine employment in severe cases of the club-foot wrench.

I am, Sirs, yours faithfully,

Liverpool, Dec. 19th, 1892. ROBERT JONES.

MEDICAL DEFENCE SOCIETIES.

To the Editors of THE LANCET.

SIRS,—The steady increase in the number of members of our two medical protection societies shows that many practitioners at any rate have awakened to the importance and usefulness of such societies. I trust in time the numbers now reckoned by hundreds will be reckoned by thousands. I have been a member of one of these societies for about two years, and I think it only right to relate a recent experience of my own as showing that it is not only consultants and general practitioners who may benefit by such membership, but younger members of the profession also, on whom the cares and anxieties of general practice have not as yet descended. I refer to residents in hospitals and other institutions. I am the senior resident here, and on an occasion some time ago had to put outside a drunken patient who was creating much disturbance and declining to leave the premises. He had a child with him—presumably for the purpose of helping him to find the way, he being very drunk—and in going down the steps fell over the child on to the pavement. No complaint of injury was then made, but next day the man appeared again, saying he was suffering from "a fractured wrist and bruised elbow," and wanting to know "what I was going to do for him." On my replying, "Nothing," he said he would make me "pay for it," and the next day I received a solicitor's letter demanding damages and costs under threat of issue of writ. I knew the injuries named could not have been done at the time of the fall, if at all, and I found on inquiry that he had been treated at the Royal Southern Hospital for very slight bruises of the elbow only. I communicated with the Medical Defence Union and by return of post received a reply stating that as the man had declined to leave the dispensary I was quite justified in using reasonable force to put him out, and that the Union would be prepared to defend me in any action which might be taken against me. Our solicitor was instructed to write to this man's solicitor offering to accept service of writ on my behalf, but from that day to this we have heard nothing more of the case. That is now four months ago, and I am therefore justified in assuming that the attempt has been foiled by the prompt action of the Union.

I am, Sirs, yours faithfully,

E. PETRONELL MANBY, M.D. Cantab.

South Dispensary, Liverpool, Jan. 2nd, 1893.

"ON THE DIAGNOSIS OF THE DIFFERENT FORMS OF PROSTATIC ENLARGEMENT."

To the Editors of THE LANCET.

SIRS,—Will you allow me to trespass on your space for the last time by quoting a portion of a letter Mr. C. Mansell Moullin sent to me in June last when returning my instrument. He says:—"I am much obliged to you.....and am exceedingly pleased with the instrument.....but I will try some modifications." The logical deductions are obvious,

[1] Medical, Feb. 8th, 1888.

and those who will contrast my article with Mr. Moullin's account of his instrument will form their own opinions as to the "borrowing of ideas" and "misapprehensions." I should be most pleased to submit my urethrometer to you or any other judge. It is now skilfully perfected by the Messrs. Arnold. For my part I did not wish Mr. Moullin to assume the seraphic abnegation which he now displays in disclaiming all originality!—I am, Sirs, your obedient servant,

Crouch End, Dec. 31st, 1892. JAMES MACMUNN.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Refuse Disposal Difficulty.

THE Corporation have received a somewhat unexpected rebuff at the hands of the Local Government Board, who have refused to sanction a loan of some £60,000 for the purchase of Rampton Manor in Nottinghamshire, an estate which they had agreed, subject to the Board's consent, to purchase and use for the disposal of such portion of the nightsoil of Manchester as cannot be utilised at Carrington, the Corporation's present sewage farm in Cheshire. As I mentioned in a previous communication, a long and careful inquiry was held several weeks ago, both at Rampton and here, by Mr. Smith, one of the engineering inspectors of the Board, and a great deal of evidence was tendered both for and against the proposal of the Corporation. The grounds on which the Board have refused their sanction appear to be, first, the distance over which the refuse would have to be carried by rail; and secondly, the strong opposition which the rural sanitary authority of Nottinghamshire has raised against the scheme. The result, however, of the Board's action in this matter will be to considerably hamper our city council in their attempts to dispose of the night soil and excremental refuse of the city. According to the evidence at the inquiry Rampton is most favourably situated and is well adapted for the purposes to which the Corporation desire to apply it; the place is very sparsely populated and the land appears to be greatly in need of manure. In fact, a considerable number of the farmers in the district have signed a memorial requesting that Manchester should be permitted to send manure to Rampton, and expressing the opinion that the land would be much improved by the process. It will be interesting to note how the Corporation will meet the present emergency. The city is fast increasing in size and will probably absorb many of the outlying districts as time goes on. No one has as yet proposed that the highly offensive contents of our middens and pails should be burnt within the city, and yet it is difficult to see how otherwise it is to be disposed of, unless some means can be devised of obtaining land to which the excremental refuse of the city may be applied.

Public Lavatories.

For many years past complaints have been common as to the serious inconveniences to which visitors to Manchester (especially ladies) have been subjected because of the almost complete want of public lavatories within the city. This want is now in a fair way of being supplied. About two years since a pair of lavatories were fitted up in Albert-square to replace the hideous structure which previously did duty for a lavatory, and which was unanimously voted a great eyesore to a part of the city having some pretentions to architectural beauty. The present lavatories are two in number—one for each sex. They are built underground, after the fashion of those at the bottom of Regent-street, London. The lavatories are fairly well lighted, they are fitted with all necessary appointments and are free from objectionable smell. They are the property of the Corporation and are kept scrupulously clean by persons appointed for that purpose. A small charge is made for the use of the lavatory and water-closets, as is the case in London. The public look upon them as a great boon, and the Corporation are so well satisfied with their experiment in Albert-square that they are now engaged in the construction of another similar pair under the pavement opposite the Royal Infirmary in Piccadilly.

Continued Spread of Small-pox.

Small-pox still continues to spread in Manchester in spite of the efforts which have hitherto been made to stamp it out. In the first week of December twelve cases of the disease were notified, in the second week fourteen cases, in the third nineteen and last week twenty cases. With one exception every one of the patients has been removed to the Monsall Hospital, which is accordingly becoming crowded. At the present time there are reported to be sixty-seven cases of small-pox at Monsall, and as all these cases have been sent in within the last few weeks there is no immediate probability that many of them will be discharged. The disease seems to be present in all the principal districts of the city, and recently it has shown a tendency to spread in the direction of Chorlton, which district was comparatively free from infection during the first few weeks of the epidemic. The medical officer of health has issued circulars to the millowners, proprietors of business establishments, occupiers of factories and workshops, and indeed to employers of labour generally, asking their coöperation in inducing their *employés* to submit to the operation of revaccination. He has also circulated a leaflet giving in plain language a short description of small-pox so as to assist in its detection and thus to secure the calling in of medical aid and the early and prompt removal of infected persons to hospital. Attention is also directed in the leaflet to the provisions of the law against exposure of infected persons and things and against the conveyance of small-pox patients in cabs, trams, railway trains and other public conveyances.

January 3rd.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Christmas and New Year Tragedies.

THE assizes were only completed on Christmas Eve and it is lamentable to have to record two deaths from homicidal violence, one on Christmas Day, the other on New Year's Day. In the first case the victim was a woman and her husband has been committed for trial on a charge of wilful murder. In the second case the victim is a young man and at the inquest held to-day the jury returned a verdict of wilful murder against a young woman who was seen to stab him.

Execution at H.M. Prison, Walton.

Cross Duckworth, who was tried at the recent Assizes for the wilful murder of a little girl aged nine, was executed on the 3rd inst. at Her Majesty's Prison, Walton. The deceased was found dead with a handkerchief stuffed in her mouth, and this had been done with such violence as to tear the soft palate from its attachments. The prisoner was found guilty by a complete chain of circumstantial evidence, and though the jury recommended him to mercy the surroundings of the case were such as fully to justify the Home Secretary in declining to interfere with the sentence of death. It is to be hoped that the prisoner's fate will act as a warning and deter other men from committing or even attempting a crime which has been terribly frequent of late—the violation of young females.

Jan. 4th, 1893.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Durham.

Mr. F. PAWSON, a noted football player, died at the County Hospital at Durham this week. Mr. Pawson unfortunately met with an accident during play by colliding with another player, in consequence of which he was removed to the hospital on Oct. 1st last. His spine was injured and paralysis ensued, so that only the faintest hopes were entertained from the first of his recovery.

Small-pox in the North.

From the prevalence of cases of small-pox up and down the county our sanitary authorities are on the alert, and hospital questions and vaccination are now prominent. Cases are reported at Newcastle and Durham city and county. As a rule, they are introduced and propagated by tramps and vagrants as before noticed, but so far nothing like an epidemic form of the disease has been noticed in the north. A case of small-pox having been found in the casual wards of the Sunderland workhouse, and the day afterwards another case being observed, the guardians promptly met and decided

to isolate these cases and to have a separate medical man to attend such. Meantime, the County Lunatic Asylum has written refusing to take lunatics from the Sunderland Workhouse until it can show a clean bill of health.—At the late meeting of the Auckland Guardians the medical officer drew attention to the great hardship of his having to attend a small-pox hospital with which his duties were in no wise connected, and to the fact that he had to suffer serious loss in his private practice in consequence. He asked therefore for a substantial increase in his salary if he continued to be identified with the small-pox hospital. The subject was left open for further consideration by the guardians.

Cumberland.

A deputation from the Trustees of the Town and Harbour of Maryport have waited on the Local Government Board at Whitehall relative to the proposed hospital at Maryport for the isolation of patients suffering from infectious disease. The Trustees are anxious to proceed with the erection of the hospital, and by this interview sought to shorten the preliminaries as much as possible.—Mr. J. G. Wilson of Thistlewood has bequeathed £500 to the Cumberland Infirmary at Carlisle.—It has been decided to erect a new infirmary at Lancaster, the estimated cost of which will be about £17,000.

South Shields and the Inebriate Question.

At a late meeting of the South Shields Guardians a letter was read from the British Medical Association asking the guardians to petition Parliament to initiate legislation for the compulsory reception and detention in special houses for curative purposes of diseased inebriates; but the guardians were indisposed to meddle in the matter, as they felt it would be unwise for them to ask for legislation in advance of public opinion. The subject was not therefore further proceeded with.

Whitby.

Mr. Martin Simpson, a well-known Yorkshire geologist, died at Whitby a few days ago at the advanced age of ninety-three. Mr. Simpson was well known to medical visitors to Whitby, as he was for fifty years curator of its museum; indeed, he did much, if not to found, at least to develop the museum, together with the late Mr. R. Ripley, surgeon of that place. His published works had a distinct value of their own, including a "Monograph of Ammonites of the Yorkshire Lias," "The Fossils of the Yorkshire Lias," "A Guide to the Geology of the Yorkshire Coast," "Geology of the Whitby District" &c. Some of these works date as far back as 1843. It will be thus seen that Mr. Simpson was a student of geology when it was a far less popular pursuit than it is at present.

Newcastle-on-Tyne, Jan. 4th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Royal Infirmary Annual Report.

THE statutory general meeting of the contributors to the Royal Infirmary was held on Monday, Lord Provost Russell presiding. The treasurer and clerk submitted the report by the managers for the year to Oct. 1st last. The number of patients remaining in the hospital at Oct. 1st, 1891, was 610, the number admitted from that date to Oct. 1st, 1892, was 8027, the total number treated being 8637. Of these there were dismissed cured, 3769; relieved, 2818; on other grounds, 884; and died in the hospital, 605; while the number remaining was 561. Of the cases brought to a termination 3844 were medical and 4232 surgical. The daily average number of children in the wards was 58, most of whom were treated in the surgical wards. The average daily number in the hospital was 652, the greatest number being 691 and the lowest 575. The average time each patient was under treatment was 26·6 days. In the preceding year the total number of patients treated was 8769 and the average daily number in the hospital was 648, and the average time each patient was under treatment was 26·9 days. Of the cases, 3607 were from Edinburgh, 544 from Leith and 3925 from the country. The percentage of deaths to the whole of the medical and surgical cases was 7·0, but, deducting 134 which occurred within forty-eight hours after admission, the percentage was reduced to 5·4. The number of patients admitted to the Convalescent House was only 621, owing to the closing of the house from June for extension. In addition to the number of in-patients given above there were about 23,000 patients treated in the out-patient departments, which include special departments. The ordinary income was £30,630 10*s.* 3*d.*, as compared with £31,167 13*s.* 11*d.* in the previous year. The income includes donations and legacies under £100. The managers point out with satisfaction that the sum subscribed by the country districts has increased, but that the church collections in the city are still below what they were. The ordinary expenditure has been £41,969 19*s.* 5*d.*, as against £40,400 10*s.* 9*d.* for the preceding year. This increase is due to the greater cost of articles of maintenance, an increase in wages and a larger expenditure on furnishing and repairs. During the year a sum of £11,699 12*s.* 6*d.* was expended on the erection of the new home for nurses, two new lecture theatres and other necessary additions. There was also spent on the purchase of property for the extension of the infirmary the sum of £17,997 5*s.* 1*d.* Owing to these various causes the debt now due to the bank is £36,979 8*s.* 9*d.* and in view of this the managers make an appeal for large benefactions. Reference is then made to the nursing staff, and it appears that during the year 593 applications were received for admission to the training school, while several requests to train pupils for other institutions had to be refused. The most important points in the history of the infirmary during the year are the completion and occupation of the new home for nurses. This allows of an increase in the number of nurses, which was necessary. The dispensing department is also to be enlarged. A detailed account is given of the negotiations in connexion with the application by the Scottish Association for the Medical Education of Women for their students to be admitted to the infirmary for clinical instruction. Owing to the acquisition of property in Lauriston-lane two wards were set free, and these, furnished with twenty beds each, were made available for the instruction of women without encroaching on the wards hitherto used by male students. Arrangements have further been made whereby women students may receive clinical instruction in one of the general medical wards and in the special departments, so that in all 162 beds have been placed at their disposal. In addition they are allowed to attend the out-patient department and the pathological theatre at certain times. The report then deals with the negotiations regarding the purchase of the site of the old Sick Children's Hospital, which were successfully carried out, and it is hoped money will be forthcoming for building on the ground thus acquired. The Convalescent House when completed will have accommodation for 100 patients.

The Health of Edinburgh.

For the last week of the year the deaths numbered 118, making the rate of mortality 23 per 1000. Of the total deaths, 19 were due to brain diseases, 56 to chest diseases, 12 to debility and age and 17 to zymotic diseases, of which 2 were due to diphtheria, 13 to measles and 2 to whooping-cough. The intimations for the week were: Typhoid fever, 3; diphtheria, 4; small-pox, 1; scarlet fever, 43; and measles, 316. For the year the number of deaths was 4746, making the death-rate 17·92 per 1000. There were 1742 deaths under five years and 1170 above sixty, of which 199 were above eighty and 25 above ninety years. Diseases of the chest caused 1607 deaths and zymotic diseases 641, of which 3 were due to typhus fever, 28 to typhoid fever, 42 to diphtheria, 69 to scarlet fever, 396 to measles, 82 to whooping-cough, 20 to erysipelas and 1 to small-pox. The intimations for the year were 10,124 and comprised 18 typhus fever, 238 typhoid fever, 203 diphtheria, 8 small-pox, 1856 scarlet fever and 7801 measles.

Health of Leith.

The mortality in Leith last week was at the rate of 34·91 per 1000. There were 2 deaths from scarlet fever and 14 from measles.

The Christmas Vacation in Edinburgh.

Classes resume to-morrow (Wednesday). There has been a good deal of grumbling, as there always is, over the shortness of the holiday; it is only of a fortnight's duration.

The City Hospital, Edinburgh.

The number of cases treated in this hospital during the year was 2144 and comprised: Typhus fever 16, typhoid fever 132, diphtheria 75, small-pox 8, scarlet fever 932, measles 493, whooping-cough 54, erysipelas 172, influenza 39, and 223 were admitted for observation or placed in quarantine. The deaths numbered 124, or 5·78 per cent.

January 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Small-pox: Prosecution for Exposure.

ON Saturday last, in the South Police Court, a man was prosecuted under the 142nd Section of the Public Health Act for having exposed himself in a public vehicle while suffering from small-pox. The prosecution was instituted by the Corporation on the recommendation of the Local Government Board. From the evidence given it appeared that the defendant contracted the disease in Liverpool and came to Blackrock, near Dublin, on Nov. 18th, 1892, where he was seen by the dispensary medical officer, who recommended him to go to Loughlinstown Union, but he refused and said he would go to Dublin. He was duly warned to take all necessary precautions, but nevertheless travelled from Blackrock by an ordinary train to Dublin. He walked through the streets of Dublin and on Nov. 24th was admitted into Cork-street Fever Hospital. The defendant said that he did not at the time think he was suffering from the disease, he did not feel unwell and he thought he had merely a rash of some kind. The magistrate pointed out the danger of travelling while affected with a disease of the kind and inflicted a fine of £3, which subsequently was reduced to £2, as the defendant's clothes had all been burned.

The Belfast Hospital for Sick Children.

Two vacancies have occurred in the staff of this hospital by the retirement of Mr. John Fagan, who was one of its two original founders and has been surgeon at this institution since 1873; and by the resignation of Dr. Campbell, who for the past two years has been assistant surgeon. A number of candidates are in the field for the two appointments, the posts being highly valued as affording exceptional opportunities for studying the diseases of infancy and childhood.

Medical School Dinner.

I understand that arrangements are now being completed for having a dinner in connexion with the Belfast School of Medicine on Thursday, Jan. 26th. It is expected that all the teachers and a large number of the old pupils will be present.

The Union Infirmary.

At the usual weekly meeting of the Belfast Board of Guardians held on Jan. 3rd it was decided to grant Dr. Seaton Reid a retiring allowance of £100 and Dr. Bryce Smith £50 per annum. In reference to the admission of students, a resolution was carried requesting the Local Government Board to give effect to the resolutions adopted on Dec. 13th admitting medical students to clinical lectures.

Progress of Belfast.

During the past year (1892), although for a lengthened period there was a strike in the building trade, 2112 new buildings were erected and there has been an increase in valuation of £24,013. During the past thirty-one years there were 41,371 new buildings erected in Belfast and in the same time an increase in valuation is noted of £461,428. Belfast is still growing with leaps and bounds, and in no city in the United Kingdom is work more plentiful.

January 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

French Bacteriologists in New South Wales.

SOME years ago Madame Pommery, whose name is so familiar to epicures, began to utilise some waste land over her champagne cellars for the breeding of rabbits destined to serve as food for the powder expended by her guests during the shooting season. Madame Pommery was evidently unacquainted with the rabbit scourge that has proved so detrimental to agricultural operations in Australia or she would never have made such a hazardous experiment. Finding that the rodents above ground were fast becoming more numerous than the bottles in the cellars beneath and that their burrowing threatened the stability of the said cellars, she consulted M. Pasteur. That magician, by sowing chicken-cholera broadcast amongst the obnoxious animals, succeeded in killing them all in a fortnight. Fortified by this brilliant result M. Pasteur, it will be remembered, despatched to Australia a commission headed by his relative, M. Loir, with the object of repeating the massacre on a large scale in our progressive but rabbit-ridden colony. It appears, however, that the Colonial Government had hitherto been paying so much a head for every rabbit killed and certain individuals who gained their livelihood in this way naturally objected to the putting into practice of the more expeditious Pasteurian method. The wire-netting industry was also well to the fore in the outcry raised against the Gallic Commission and the bugbear, chicken cholera, was advanced in order to frighten poultry breeders. The Government was powerless against this artfully contrived agitation and the justly offended *savants* had to content themselves with a sop—viz, the founding by the authority of a Pasteur Institute at Sydney wherein they could, on the condition that they left the playful "bunny" strictly alone, undertake bacteriological researches that might benefit the colony in other but unrodent directions. That the labours of this enlightened band of scientists have not been unfruitful since their installation at the Sydney Institute is apparent from a report issued by the director, M. Loir, which appears in the November number of the *Archives de Médecine Expérimentale*. The subjects studied were charbon (anthrax) and the pleuro-pneumonia of cattle. Subcutaneous inoculation of charbon virus proved fatal to the kangaroo rat, the Australian cat (a carnivorous marsupial), the kangaroo and the Australian bear (kaola). Introduced into the system through the stomach the virus killed the kangaroo rat, but failed to do so in the case of the Australian cat, appearing to have, on the contrary, conferred on that animal immunity against subsequent inoculations. Enormous sums are lost annually in Australia through the ravages of bovine pleuro-pneumonia. The insufficiency of railway communication explains the spread of the disease amongst cattle, most of the roads being probably infected to a large extent. A method of inoculation against this disease is known and extensively practised. This consists in inoculating the active virus into the animal's tail. Local œdema is produced and sometimes gangrene, but ordinarily the beast recovers and acquires immunity against the dread disease. Unfortunately, the virus keeps badly, and inoculations are only practised when an epidemic breaks out in a herd. By this time the disease has spread and inoculation comes too late. MM. Loir and Germont were requested by the Queensland Government to prepare on a large scale cultures of the virus which could be supplied to cattle raisers. This they have succeeded in doing by a proceeding due to M. Pasteur. The virus is inoculated into the shoulder or the dewlap of the calf. Considerable œdema ensues and puncture of the sac gives issue to as much as two litres of serum. M. Loir has discovered that in order to collect the liquid at the acme of its virulence it must be taken when the calf has a temperature of 41° or 42° C. He has also proved that the liquid is as active as the natural virus taken from the lung of an animal affected with idiopathic pleuro-pneumonia. There is unfortunately a limit to the time during which the lymph can be kept, the activity, when preserved in sterilised tubes, disappearing in twenty days. Attempts to isolate the microbe of this disease have hitherto failed. The above discovery is nevertheless a most important one, the immunity conferred by the inoculation having proved very perfect. The following experiment confirms this statement: 2000 cattle are inoculated with the virus derived by the above-described (Pasteur's) method from a calf. The herd is despatched on a journey of 2000 kilometres, the addition being made to their number at the start of 19 uninoculated animals. The journey accomplished, it was found that not one of the inoculated beasts had contracted pleuro-pneumonia, whereas of the 19 unprotected ones 8 had succumbed to it.

Statistics relating to the Population of France for 1891.

The report of M. Lax, director of the Office du Travail, has just been sent to the Minister of Commerce. From this report it appears that there were registered during 1891 in the whole of France 285,458 marriages, 5752 divorces, 866,377 births and 876,882 deaths. Compared with the figures of 1890 I find an increase of 16,126 marriages, 295 divorces, 28,318 births and 377 deaths—that is to say, while the number of deaths has remained virtually constant, the marriages have increased 6 per cent. and the births 3·37 per cent. It will be noticed that the deaths exceeded the births by 10,505. The general rate of mortality was 22·6 per 1000.

The population of France in 1891 was 38,343,192. The oscillation of the marriage rate since 1884 is interesting.

1884	289,555	marriages.
1885	283,170	,,
1886	283,208	,,
1887	277,060	,,
1888	276,848	,,
1889	272,934	,,
1890	269,332	,,
1891	285,458	,,

The fluctuations in the divorce figures since 1884, when M. Naquet reintroduced that institution, are as follows:

1884	66	per 100,000 households.
1885	57	,, ,,
1886	40	,, ,,
1887	50	,, ,,
1888	60	,, ,,
1889	61	,, ,,
1890	73	,, ,,
1891	77	,, ,,

Of the 866,347 children born in 1891, 443,227 were boys and 423,150 girls, while 792,441 were legitimate and 73,936 illegitimate, these latter constituting 8·5 per cent. of the entire births. Of the 876,882 deaths, 453,085 were male and 423,797 female. As in 1890, the death-rate for 1891 was high, the parts of France which were most tried in this respect having been the south-east and the west. In fifty-three departments the excess of deaths over births has entailed a total loss of 62,533, an inverse process having given to the remainder (34) a gain of 52,028. For the whole of the country there were for 1000 deaths, 989 births. Of the 13,958 foreigners who married during 1891, 347 were of English nationality. The births comprised 26,475 foreigners, including 368 English. The death-list included 17,626 foreigners, 478 of them being British.

January 4th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Cholera in Hamburg.

So far as I can judge from the reports in the newspapers, the number of cholera cases in Hamburg last week was seven, the number of deaths from cholera two.

Pathologico-Anatomical Plates.

Professor Kast (now in Breslau, formerly head of the Hamburg Infirmary) and Dr. Theodor Rumpel have published pathologico-anatomical plates taken from fresh preparations, with explanatory text. They have been assisted by an artist named Gummett. The plates are very cheap, and are said to be excellent.

Medicine in the Middle Ages.

Dr. Julius Pagel, private lecturer on the history of medicine in Berlin University, has induced Dr. Otto Paderstein to edit a part of the "Revocativum Memoriæ" of Johannes de Sancto Amando, a Belgian physician of repute who flourished in the thirteenth century. It is a manual of pathology and therapeutics, which was much used by medical students six centuries ago, and affords a valuable insight into the state of the science and art of medicine at that time. Dr. Paderstein's edition, which is the first, is based on four manuscripts.

A Practitioner Sentenced for Fraud.

A Leipsic practitioner, Dr. von Tischendorf, a man of good reputation, with an income of about £500 a year, was sentenced to eight months' imprisonment on Christmas Eve for fraud. He had a private dispensary and received from each patient belonging to the sick fund of the place only 1 mark and 25 pfennigs (1*s.* 3*d.*) a day for board, lodging and medical attendance. In order to eke out this miserable pittance, he reckoned more than the actual number of days in his accounts. In ten accounts which were laid before the court eighty-two of the ninety-nine entries were proved to be false. The court took the good reputation of the accused and the inadequacy of his pay as doctor to the sick fund into account as extenuating circumstances.

Miscellaneous Items.

Owing to the death of Professor Wilhelm Braune, Dr. Fick of Würzburg has been invited to teach anatomy in Leipsic University, with the title of Extraordinary Professor. Professor Werner Spalteholz has been appointed curator of the anatomical museum there.—Wilhelm Marmé, Professor of Pharmacology at Göttingen, has received the title of Privy Medical Counsellor.—The "Society for the Investigation of Nature" is celebrating the hundred and fiftieth anniversary of its foundation to-day at Dantzic. A history of the Society has been prepared for the occasion.—A committee has been formed for the purpose of commemorating, by the erection of a bust, the twenty years' services of Surgeon-General Mehlhausen as medical director of the Charité.—The medical faculty of Berlin University has forwarded to M. Pasteur a letter of congratulation in Latin on the occasion of his seventieth birthday.

Berlin, Jan. 2nd.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

The Sanitary Condition of Wellington.

A LETTER appeared in THE LANCET of Sept. 24th last signed by Dr. Chapple of Wellington, in which that gentleman refers to my article on the above heading as "painfully unjust, as my report most clearly proved." Unfortunately Dr. Chapple does not give his reasons for characterising my remarks in this manner, nor, indeed, do I think it possible for him to do so, since the article in question is in the main a *résumé* of his own sanitary report. If any "scathing criticism" makes its appearance it has emanated from Dr. Chapple himself. When the report on the sanitary condition of the city first appeared the universal opinion expressed was that at last a man had been found who struck out straight from the shoulder in such a manner as to show very clearly the absolute necessity for immediate sanitary reform. Dr. Chapple's report, I maintain once more, most clearly demonstrated that the condition of the city at the time of writing was such as reflected disgrace on the authorities. It has astonished me not a little, too, to find Dr. Chapple making the assertion that "previously to 1890 there was comparatively little typhoid fever existing." I reiterate once more that dirt, disease and death have given this city an unenviable notoriety among the cities of the colony for years past. If Dr. Chapple will look up the Registrar-General's reports for, say, the past ten years he will find that typhoid fever has claimed many victims yearly (I have recently forwarded you the statistics) and that the death-rate from this disease was on the increase at the moment that his report appeared. As a matter of fact, Wellington has been the "home" of typhoid fever in this colony for, at any rate, the past fifteen years. Numerous instances could, if necessary, be cited where cases of typhoid fever occurring in other parts of New Zealand have been actually traced to a Wellington infection. Another point I wish to refer to in the letter and I have done. Dr. Chapple accuses me of attacking the sanitation of the whole city. In this respect, too, his letter is not correct. He has evidently not read my article with any care or he would have come upon the following sentence: "The yearly outbreaks of fever have been confined to a small area in the Te Aro end of the city." As a matter of fact an acknowledged area of about 100 acres teeming with fæcal accumulation (according to the recent report) in the centre of a city cannot conduce to a "comparative immunity from all forms of zymotic disease." In conclusion, I heartily congratulate the ratepayers of Wellington on their recent determination to purify the city from all infectious diseases, and no one wishes them more thorough success than your own correspondent.

Nov. 30th, 1892.

BOMBAY UNIVERSITY AND THE M.B. DEGREE.—Another effort is being made by the Senate of the Bombay University to put their medical degrees on a new basis. With this object in view it has been proposed to change the degree of L.M. and S. to M.B., the Arts examination being substituted for that of Matriculation. Another suggestion is that the "intermediate" in Arts or the final B.Sc. be the preliminary test, and that the L.M. and S. degree remain until an equivalent diploma is granted by some licensing body. Other suggestions have been made and there is a general feeling that some change is necessary. At present the discussion on the matter by the Senate stands adjourned.

Obituary.

THOMAS HAWKSLEY, M.D. LOND., M.R.C.P. LOND.

IN taking a retrospect of the career of those members of our profession who have attained to success and eminence in their respective spheres of action it will be found that in some instances certain favourable advantages have existed in connexion with the individual, such as blood relationship, with one who has held an exalted and influential position in the profession, or with someone who is prominent in the social scale and is able to materially advance the career of the aspirant to fame, and when these advantages have existed and their possessor is gifted with sound knowledge, energy, judgment and good health success comes rapidly. There are others, however, who have not been favoured by any of the advantages which so much assist a man in his professional career and yet owing to their own energy and perseverance have met with great success and led most useful lives. To this category the late Dr. Hawksley belonged, and, moreover, he laboured under the disadvantage of feeble health, and in consequence of disease in one of his lower limbs was rendered lame for the greater portion of his life; but his physical weakness was compensated for in a great measure by marked mental activity and determination of character. Born in 1820, Dr. Hawksley at the finish of his general education determined to follow the profession of medicine, and prior to entering upon the usual curriculum at one of the public schools he acted as assistant to Mr. Fincham of Spring-gardens, a practitioner of the old school, who attended a considerable number of people of all classes in the neighbourhood and in Westminster. Here Dr. Hawksley had a good opportunity of seeing the drudgery incidental to the duties of the general practitioner fifty years ago and was a careful witness of the routine treatment which was carried on in those days even by highly educated men, for at that time the use of the lancet was much in vogue and inflammatory disorders, such as pneumonia and peritonitis, were treated by the most violent remedies, such agents as mercury and antimony being used in frequent and excessive doses. In fact, in those days symptoms only were combated and little heed was given to the causes which produced the morbid phenomena in question. During this time Dr. Hawksley paid much attention to the study of materia medica, always a favourite subject with him. Among other good advice which he gave to a junior pupil just entered upon professional study, he recommended him to write out the whole of Phillips' Pharmacopœia, which was at that time the standard work. He entered at the school of King's College in 1840, residing in the house of a practitioner in the neighbourhood. This was at a period when a student could qualify himself in about two, or at least three years, and Dr. Hawksley was not long in doing this. He made the best use of the opportunities afforded him by the distinguished teachers who were then raising the reputation of the school and was noted for his energy and intelligence, gaining a high position amongst his fellow pupils, and in a very short time obtaining his qualification. He married and took a small house in Margaret-street, Cavendish-square, and there commenced the practice of his profession. After residing there for some years he took the degrees of M.B. and M.D. of the London University, and in 1854 obtained the Membership of the College of Physicians. His favourite study being in that direction, he attached himself as physician to the Infirmary for Diseases of the Chest in Margaret-street. He subsequently removed to George-street, Hanover-square, where he resided for several years, but later changed his abode to Brook-street. At this period of his life he was not only engaged in an extensive practice, but was devoting himself to sanitary science and matters of philanthropy; he took a leading part in the establishment of charitable societies and employed his pen on the subjects of pauperism, the charities of London, the culture of the children of the people and the sewerage of London. Besides these, he wrote papers on various medical subjects and warmly advocated the use of the earth closet. For some time he resided at Brighton, coming up to town frequently to attend his patients, and ultimately he purchased some property at Chertsey before withdrawing from the practice of his profession. At this latter place he developed a scheme which he had long revolved in his mind: on the property he purchased he erected a building which was formed into a School of Handicraft for Destitute Boys, who were rigorously trained to useful mechanical arts and were thus saved from poverty and crime and sent out into the world as redeemed and useful members of society. In this noble work Dr. Hawksley spent the energies of his philanthropic mind during the last few years and was enabled to see it crowned with success. It is computed that he devoted as much as £30,000 to this object alone.

Always more or less feeble in frame, Dr. Hawksley had during the latter years of his life suffered much in various ways. Some ten years since he underwent two operations for stone in the bladder and subsequently during his life had much vesical trouble, but to the astonishment of those who had known him long he reached the age of upwards of seventy and was cut off by an attack of obstruction of the bowels, for which colotomy was performed. Dr. Hawksley's success was due entirely to his own perseverance. Without any brilliant qualities, he was a conscientious and diligent cultivator of his profession; he was a shrewd observer, and not only did he take a deal of trouble in investigating the diseases of those he attended, but he had the fortunate gift of impressing his patients with the fact and consequently he gained their entire confidence. It is not often that men in our profession have such opportunities of practically showing the results of that philanthropic spirit which animated the subject of this memoir. His useful life will prove a great example to those who may be placed in similar positions of being able to benefit their fellow creatures.

JAMES R. D. P. BRIGHT, M.D., M.R.C.P.

THE subject of the present notice, who died on Dec. 18th at the very advanced age of eighty-eight years, was some forty years ago a well-known and a much-respected physician at the West-end of London, having successfully carried on a practice at Cambridge-square for a period of about twenty years. Dr. Bright was the youngest son of Captain Bright, R.M.L.I., and was born at Stonehouse, Devonshire, on March 4th, 1804. When about six years old the Woolwich division of Marines was formed, and Captain Bright being appointed barrack master, the family removed to Woolwich. Dr. Bright, with his two brothers, was educated at Blundell's School, Tiverton, which in those early days had so high a reputation that their father considered the advantages obtained outweighed the difficulty presented in accomplishing so considerable a distance in the then coaching days, and many a good story could he relate of the adventures of his early schoolboy days, when he was contemporary with the celebrated "Jack Russell" and many other Devonshire worthies. On leaving school, having a desire to enter the medical profession, he was placed with Mr. Bannett of Fulham, who was at that time in an extensive practice. After completing his curriculum at Guy's and St. Thomas's Hospitals in the days of their amalgamation and obtaining the M.R.C.S. and L.S.A. qualifications, he was for a short period in the United East India Company's service and took three voyages to Calcutta, the last in the *Cæsar*, when he was in medical charge of a large number of troops. After his return from this voyage he settled in active practice in Brighton, where he was in partnership with the late Mr. Philpott, brother to the then Bishop of Worcester. In the year 1834 Dr. Bright removed to Wimbledon, where he had a very large practice and where he remained until 1844, when he settled in the West-end of London, having in the meantime taken the degree of M.D. Aberdeen in 1840. While in London Dr. Bright was for some years hon. secretary to the Medical Benevolent Fund and also hon. physician to the Institution for Governesses in Harley-street, many of whom found in him a most kind friend as well as a skilful medical adviser. Dr. Bright was admitted M.R.C.P. in 1859; he was also a Fellow of the Royal Geographical and the Geological Societies, in whose proceedings he took much interest. He wrote a work "On the Heart and Lungs," which he dedicated to his old friend and patient, Lord Cottenham, then Lord Chancellor, and which went through several editions. Dr. Bright left London in 1863, when he retired from practice and settled in Cheltenham, where he remained till 1878, and in 1882 he removed to Plymouth, where he died, much mourned and respected, on Dec. 18th, 1892. Dr. Bright married a daughter of the late Mr. John Hatchard, by whom he had ten children, six surviving, the second of whom, Mr. J. A. Bright, is a member of the medical profession

INSPECTOR-GENERAL OF HOSPITALS JOHN ROBERT TAYLOR, C.B., F.R.C.S.

THE death of this officer at Cheltenham on Dec. 23rd last at the age of eighty-three calls for more than a passing notice at our hands, for the late Inspector-General Taylor had in his time a long and very distinguished career in the Army Medical Service. He retired in 1863, and this, together with his death at an advanced age, would naturally tend to weaken the recollection of services performed so long ago, and yet there are few men who can show such a record of good and active service as the late Inspector-General Taylor possessed. He was the son of an army surgeon who died in the service at Gibraltar in 1812. He commenced his military career in the reign of William IV. as assistant-surgeon, 58th Regiment. In 1838 he went to Canada, where he had charge of the wounded after the fight at Point-au-Pelée. Up to 1839 he served at Chambly with the 1st Dragoon Guards and the 15th Regiment engaged in the Canadian Rebellion. In 1842 he joined the 29th Regiment in India as surgeon, and he served with it in the Sutlej campaign, 1845-46, including the actions of Ferozeshah and Sobraon, where the losses of the regiment were extremely heavy, being nearly one in four of the officers and men engaged. In 1848 he exchanged into the 80th Regiment, and served with it in the campaign in Burmah, including the affairs of Martaban, Rangoon, and the captures of the Great Dagon Pagoda and of Prome. In 1854 he was gazetted first-class staff-surgeon, and appointed principal medical officer at Chatham. In March, 1855, he was ordered to the Crimea, where he joined the third division of the army under Lord Raglan. He was present with his division in the assault of June 18th and in the taking of Sebastopol on Sept. 8th. He was gazetted deputy-inspector-general in 1855. It was in this war that he introduced his scheme of systematic classification and tabulation of gunshot wounds occurring in the field, which he had initiated in the Sutlej Campaign and completed during the Crimean War, in a form since adopted in all army returns. In 1856 he was made a Companion of the Bath, in 1858 he was gazetted inspector-general, and on his return to England he was, in 1859, appointed one of Her Majesty's honorary surgeons. He was principal medical officer at Fort Pitt, Chatham, until 1861, when he proceeded in the same capacity to the Cape, being also commissioned to inquire and report upon a scheme which the Government had in view for establishing a sanatorium there. His report was adverse to the scheme. In 1862 he returned to England and was appointed principal medical officer at Aldershot, where he remained until his retirement in 1863. He was awarded a good service pension from the grant for distinguished and meritorious services.

SURGEON-COLONEL C. H. Y. GODWIN.

THIS officer—the telegraphic news of whose death we briefly recorded last week—entered the Army Medical Service as an assistant-surgeon in October, 1860, became surgeon in March, 1873, surgeon-major in May, 1875, brigade-surgeon-lieutenant-colonel in October, 1886, and surgeon-colonel in March, 1892. At the time of his death, which took place at Rawal Pindi on Dec. 23rd last, at the age of fifty-four, he was the principal medical officer of the Rawal Pindi Division. The deceased officer, after serving for a long time in India, became surgeon to the Royal Arsenal, Woolwich, and went on active service to Egypt, where he did excellent work in organising and managing the hospital at Suez and in treating the sick and wounded sent there. Although specially selected for that post on account of his surgical skill and knowledge, his service there was not a remunerative one and he, moreover, suffered greatly in health from the effects of fever and climatic disease. He subsequently went to Netley as Assistant-Professor of Military Surgery, and on the retirement of Sir Thomas Longmore, C.B., he was appointed his successor, but resigned the professorship in consequence of the financial loss which the holding of it entailed and went to India, where he had only arrived a few months before he died of dysentery, leaving a widow and children to mourn their loss. The Army Medical School at Netley is the institution through which all officers of the British and Indian Medical Services have to pass, and the best men are supposed to be selected to fill the posts in its teaching staff. It seems, therefore, neither just nor expedient that medical officers specially selected for these appointments should not be well paid and that the emoluments attaching to them should not be sufficient to tempt the best men to seek for them and to try, by the character of their work, to retain them; and yet such does not appear to have been the case in the present instance, for Surgeon-Colonel Godwin, as we have seen, retired from the professorship of Military Surgery soon after his appointment thereto. The late officer was an excellent surgeon and quite *au courant* with the most recent scientific advances in surgery. He edited the latest edition of Porter's well-known handbook, and by his revisions and additions to that work did all that was possible to maintain its character as an excellent practical handbook for the military surgeon. He was always ready to take part in any surgical work or scientific investigation, and his loss will be greatly felt in the service to which he belonged and of which he was so worthy a member.

Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent B.S. (Honours) Examination:—

First Class.—Edward Percy Paton, M.D. (Scholarship and Gold Medal), St. Bartholomew's Hospital; Hamilton A. Ballance (Gold Medal), University College; *Henry Stephen Sandifer, King's College; Chas. Satchell Pantin, E. Thos. E. Hamilton, B.Sc., and Tom Robinson Taylor, B.Sc., Guy's Hospital.

Second Class.—John Lacy Firth, M.D., University College; Leonard Rogers, St. Mary's Hospital; Wm. Black Jones, St. Bartholomew's Hospital; Chas. Henry Preston, Owens College, Manchester Royal Infirmary and London Hospital; Thomas David Lister, Guy's Hospital.

Third Class.—Francis Jordan Coleman, Alfred Wm. Sheen, and John Wm. Frank Jewell, Guy's Hospital; Charles Edwin Wheeler, St. Bartholomew's Hospital.

* Worthy of Medal.

FOOTBALL CASUALTIES.—A young man, whilst playing last week in a match on the Goddard-street Ground, Crewe, fractured his clavicle. During a match in the same week, at Glossop, between North End and Stocksbridge, a member of the latter team sustained a compound fracture of the leg and was admitted to Wood's Hospital. A young man of Jarrow, who was injured in the spine while playing in October last in a match between Durham City and Westoe and was removed to the Durham County Hospital, died there on the 2nd inst. The injury received brought on paralysis.

THE SOCIETY OF PUBLIC ANALYSTS.—On Wednesday the annual dinner of this society was held at the Criterion Restaurant, Sir Charles Cameron, M.D., being in the chair. The company included a large number of gentlemen engaged in analytical science. The President, in proposing "Success to the Society of Public Analysts," remarked that the past president, in vacating his seat, was leaving the Society in a greatly increased state of efficiency. Mr. Otto Hehner, in responding to the toast, testified to the improved condition of analytical science, to the value of the work achieved by the Society and to the necessity of enhanced vigilance on the part of those engaged in counteracting the designs of fraudulent dealers in food and drugs.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Fishmongers' Livery Company and the Salters' Livery Company have granted twenty-five guineas and ten guineas to the Royal Westminster Ophthalmic Hospital respectively.—The secretary of the Children's Hospital Sunday-school Fund, Birmingham, has handed over £281 17*s.* 10*d.* to the committee of the Children's Hospital, Birmingham, being the proceeds of the thirteenth annual collections made in the various Sunday-schools of that city and neighbourhood.—The treasurer of the Queen's Hospital, Birmingham, has received £75 from the Birmingham Charity Sports, 1892.—The ball in aid of the St. John's Convalescent Home for Children, Brighton, which took place on Nov. 30th last, resulted in the sum of £109 17*s.* being handed over to that charity.—The executor of the late Mrs. E. Hohn has forwarded a cheque for £100 to the Hospital for Epilepsy, Regent's-park.—The late Mr. Thomas Wm. Christie, M.R.C.S., Liverpool, bequeathed £100 to the Castlebar Infirmary, Mayo.—Mr. Wm. Robert Barker, late of New Bond-street, London, bequeathed £100 to the Cheltenham Hospital.—Mr. Laurence Morrissey has left £200 each to Jervis-street, Mater Misericordiæ and St. Vincent's Hospitals and £100 to the Hospital for Incurables, Dublin.

THE MORLEY CONVALESCENT HOME.—Arrangements are now being made for the formal opening of the new wing. The ceremony will, it is expected, take place towards the end of next month or the beginning of March.

SOCIETY FOR THE STUDY OF INEBRIETY.—Four lectures on inebriety and medical jurisprudence will be delivered by Dr. Norman Kerr at the Medical Society of London, Chandos-street, on Jan. 10th and successive Tuesday afternoons.

MEDICAL MAGISTRATES.—Mr. George Augustus Davies, L.R.C.P. Lond., M.R.C.S., of Newport, Monmouthshire, and Dr. George H. Dabbs of Shanklin, Isle of Wight, have been placed on the Commission of the Peace for the borough of Newport and the county of Southampton respectively.

THE NEW PUBLIC HOSPITAL FOR FALMOUTH.—The committee for this hospital have now in prospect a substantial sum for the building fund and a large amount in annual subscriptions, so that they are in a position to invite building plans for the proposed institution. Some difficulty, however, has arisen with regard to the site.

FOOT AND MOUTH DISEASE IN LONDON.—Although cases of this disease have not been discovered in the Metropolitan Cattle Market, it is deemed advisable by the authorities connected with the Board of Agriculture that an immediate inquiry be made into the condition of cattle in all the London cowsheds. Also, as a measure of precaution, the market is to be thoroughly disinfected after business hours.

YELLOW FEVER AT CUBA.—Advices from the English Consul at Santiago report the continued existence of somewhat serious mortality amongst the inhabitants of Cuba from yellow fever, although foreigners for the most part seem to escape the disease. A little time ago Dr. Garcia of Santiago conducted some experiments on the effects produced by changes of temperature and humidity on patients affected with the disease. The results, though on the whole favourable, would appear to indicate the necessity of further inquiry, which Dr. Garcia is still engaged in prosecuting.

THE CHOLERA REGULATIONS ACT.—A case was heard in a London police-court a few days ago in which a passenger was summoned for neglecting to carry out Sections 2 and 3 of the above Act, which required that information should be given of the address and destination of every passenger on an incoming vessel to the port medical officer of London. The matter is of importance, as the port sanitary authority have signified their determination to prosecute all persons who may be found violating the above-named wholesome provisions of the Act in question.

ROYAL INFIRMARY AND LUNATIC ASYLUM CORPORATION, ABERDEEN.—A special general meeting of the corporation of this institution was held on Dec. 27th, 1892, when the Lord Provost Stewart presided. In the course of the meeting it was stated that the Jubilee fund of £30,000 with the accruing interest had been spent, and a resolution was passed to the effect that the directors be empowered to transfer from the general reserve fund to the building fund such sums as might be deemed necessary to complete the work of the new buildings. A resolution was also passed granting powers to the board of directors to reconstruct the buildings of the Aberdeen Asylum and to erect a new hospital in connexion therewith, at an estimated cost of £50,000, and to obtain by loans the sum required to carry out the plan.

METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Board at midnight on Jan. 3rd, 1893, was as follows:—Eastern Hospital, 284 scarlet fever, 61 diphtheria and 35 enteric fever; North-Eastern Hospital, 402 scarlet fever; North-Western Hospital, 316 scarlet fever, 96 diphtheria and 12 enteric fever; Western Hospital, 267 scarlet fever, 33 diphtheria, and 13 enteric fever; South-Western Hospital, 272 scarlet fever, 62 diphtheria and 19 enteric fever; South-Eastern Hospital, 305 scarlet fever, 19 diphtheria and 12 enteric fever; Northern Hospital, 736 scarlet fever and 10 diphtheria; Gore Farm Hospital, 616 scarlet fever. At the London Hospital and at Guy's Hospital there were three cases of enteric fever respectively, and one case in Charing Cross Hospital. Thirty-seven cases of small-pox were under treatment in the wards of the hospital ship *Atlas*.

A NEW INFIRMARY FOR LANCASTER.—The committee of this institution have decided to erect a new infirmary, at a cost of £17,000, at Springfield-park. Mr. James Williamson, M.P., recently gave £5000 for this purpose, and Mr. W. Smith, M.P. (the president), has undertaken to build the children's ward at a cost of £1000. Including sums promised, there still remain about £4500 to be raised towards the total cost.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALEXANDER, S., M.D., B.Ch., B.A.O., has been appointed, *pro tem.*, Surgeon to the Belfast Union Infirmary.

BAILEY, THOS. WM., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Physician to the Westminster Hospital, vice Mills, resigned.

BIGGER, E. C., M.D., M.Ch., L.M., L.R.C.P.Irel., has been appointed Visiting Medical Officer, Belfast Union Infirmary.

BOWKER, C. S., M.R.C.S., L.R.C.P. Lond., has been appointed Government Medical Officer and Vaccinator for the District of Murrum-Burrah, New South Wales.

BYLES, JOHN, L.R.C.P. Lond., M.R.C.S., has been appointed Resident Obstetric Assistant to the Westminster Hospital, vice Browning, resigned.

CARTWRIGHT, E. H., M.B., B.Ch. Oxon., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant House Physician to Guy's Hospital.

CURTIS, ALBERT, M.R.C.S., has been reappointed Medical Officer of Health for the First Sanitary District of the Staines Union.

DE RENZI, HENRY CASTRIOT, M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Westminster Hospital, vice Lewis, resigned.

ELLIOTT, A. C., M.B., C.M. Edin., has been appointed Senior House Surgeon to the Preston and County of Lancaster Royal Infirmary, vice Oliver, resigned.

FISHER, W. H., M.B., B.C. Camb., has been appointed House Physician, Guy's Hospital.

GARTH, H. C., M.B., C.M., has been appointed House Surgeon to the Croydon General Hospital, vice Mesquita, resigned.

HALL, ROBT., L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Visiting Medical Officer, Belfast Union Infirmary.

HAMILTON, E. T. E., B.Sc. Lond., F.R.C.S., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to Guy's Hospital.

HARDY, LEONARD ERNEST, M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Preston and County of Lancaster Royal Infirmary.

HORMUSJI, S. C., M.D. Brux., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Health Officer of Poona.

LEWIS, H. WOLSLEY, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Westminster Hospital, vice De Renzi, resigned.

LORY, A. G. B., L.S.A., has been appointed Medical Officer for the Gringley Sanitary District of the East Retford Union.

MENZIES, J., L.R.C.P., L.M., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health to the Shirecoaks Sick and Accident Club, Worksop.

METCALFE, G. E. G., L.R.C.S., L.R.C.P., L.F.P.S. Glasg., L.M., has been appointed Medical Officer for the Capel District of the Tonbridge Union.

MINSHALL, ARTHUR G., M.R.C.S., L.R.C.P. Lond., has been appointed Senior Assistant Medical Superintendent to the St. Pancras Infirmary, Highgate.

NELLEN, GEO. MARSHALL FREDK., L.R.C.P., M.R.C.S., has been appointed House Surgeon to the Western Branch of the Brighton, Hove, and Preston Dispensary.

NORMAN, GEO., L.R.C.P. Lond., M.R.C.S., has been appointed Senior House Physician to the Westminster Hospital, vice Byles, resigned.

PIMBLETT, W. H., M.B., C.M. Edin., has been appointed Junior House Surgeon at the Preston and County of Lancaster Royal Infirmary, vice Elliott.

ROBERTS, R. P., M.R.C.S., has been appointed Medical Officer for the Carnarvonshire No. 2 Sanitary District of the Bangor and Beaumaris Union.

SHEEN, A. W., M.B., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to Guy's Hospital.

SICHEL, G., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to Guy's Hospital.

SINCLAIR, WALTER W., M.B. Aberd., has been appointed Senior House Surgeon to the Birmingham and Midland Eye Hospital, Birmingham.

STEPHENS, C., L.R.C.S. Edin., has been appointed Medical Officer for the Fourth Sanitary District of the Brackley Union.

THOMAS, J. D., M.B., B.C. Camb., has been appointed House Physician to Guy's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon, for two years. Salary to commence at £80 per annum, with residence and maintenance in the house.

CORPORATION OF NORWICH.—Medical Officer of Health. Salary £400 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Resident Assistant House Surgeon, for six months. Salary £10. Apartments, board and washing provided.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill, Surrey.—Qualified Practitioner. Salary £500, with furnished apartments in the building, together with coal and gas.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board and lodging provided.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—In-door Dispenser and Assistant to House Surgeon. Board, lodging and washing provided.

GUEST HOSPITAL, Dudley.—Resident Medical Officer. Salary £100 per annum, with board, residence, attendance and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. House Physicians.

METROPOLITAN ASYLUMS BOARD.—Medical Superintendent at the Darenth Schools for Imbeciles, near Dartford, Kent. Salary £450 per annum, with furnished residence, coals, gas, milk, garden produce and washing. (Applications to the Clerk of the Board, Chief Offices, No. 40, Folk-street, Strand, W.C.)

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Senior Resident Medical Officer. Salary £60 per annum, with apartments, board and washing.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon, for six months. Board, washing and lodging in the Hospital provided.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Physician to the In-patients. Honorarium of £50 per annum, and board and lodging provided in the hospital.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Surgeon to the In-patients. Honorarium of £50 per annum, and board and lodging provided in the hospital.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 the first year, with an increase of £10 each year for the two following years, together with board and residence.

WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon and Dispenser, who shall also be Assistant Secretary, for two years. Salary £100 per annum, with board, furnished rooms, free light, attendance and washing.

WEST RIDING ASYLUM, Wakefield.—Fourth Assistant Medical Officer. Salary £100 per annum, rising £10 annually to a maximum of £150, with furnished apartments, board, washing and attendance.

Births, Marriages and Deaths.

BIRTHS.

COVENTON.—On Jan. 1st, 1893, at Indore, Pevensey-road, St. Leonards-on-Sea, the wife of Chas. A. Coventon, L.R.C.P.Lond., M.R.C.S.Eng., of a daughter (Ruby Helen).

FAWSSETT.—On Jan. 3rd, 1893, at High-street, Lewes, Sussex, the wife of Frank Fawssett, M.B., B.S. Lond., of a daughter.

FENN.—On Dec. 30th, 1892, at Richmond, Surrey, the wife of Edward L. Fenn, M.D., M.R.C.P., of Grey Friars, Colchester, of a daughter.

SIEVEKING.—On Dec. 31st, 1892, at Gwydir House, Cambridge, the wife of Alfred Robert Sieveking, of a daughter.

MARRIAGES.

HAUSEMAN—WARD.—On Wednesday, Dec. 28th, 1892, at Holy Trinity Church, Twickenham, by the Rev. David Anderson, Rector of St. George's, Hanover-square, assisted by the Rev. P. B. Drabble, Vicar of Holy Trinity, Twickenham, Dr. James Gilpin Hauseman, of the Manor House, Houghton-le-Spring, Durham, to Jane Isabel, eldest daughter of Martindale Cowlade Ward, M.D., of Saltburn, Twickenham-common, and granddaughter of the late Matthew Imeson, of Thirsk, Yorkshire.

JOHNSON—KING.—On Dec. 20th, 1892, at St. Matthew's, Bayswater, by the Rev. W. E. Emmet, M.A., Vicar of St. Mark's, Notting-hill, Raymond Johnson, M.B., F.R.C.S., of 20, Weymouth-street, Portland-place, W., eldest son of Raymond G. Johnson, of 48, Ladbroke-road, W., to Mary Helen, eldest daughter of Robert King, of 15, Lansdowne-road, W.

TOPPING—WHITLOCK.—On Dec. 29th, 1892, at Great Yeldham Church, John Phillip Topping, M.B., C.M., of Forest-gate, Essex, to Emmy, second daughter of Walter Whitlock, Esq., of Poole House, Great Yeldham, Essex.

DEATHS.

BARSTOW.—At 8, Hoxton-street, Girlington, Bradford, on Dec. 20th, 1892, Arthur Henry Barstow, L.R.C.P.S. Ed., L.F.P.S. Glasg., aged 29.

CRANE.—On Dec. 10th, 1892, at "The Wilderness," Port of Spain, Trinidad, Lillie, the wife of S. Leonard Crane, C.M.G., M.D., aged 47.

JACKSON.—On Dec. 24th, 1892, at Scarboro' Villa, Leamington, Peter Alfred Jackson, late Surgeon 3rd Battalion Leicestershire Regiment, aged 71.

M'DONNELL.—At Park House, Park-lane, Stoke Newington, M.D.Edin., M.R.C.S. Eng., in 73rd year.

STAINS.—On Dec 29th, 1892, at the Royal Infirmary, Liverpool, in the 53rd year of her age, Miss Emmeline Stains, for over eleven years Lady Superintendent of the Royal Infirmary and of the Liverpool Training School and Home for Nurses; after twenty-five years of invaluable nursing work.

WALLACE.—On Dec. 22nd, 1892, at Hôtel des Palmiers, Nice, Brigade-Surgeon John Wallace, late of Devonport.

WHITMARSH.—On Dec. 28th, 1892, at Medina-terrace, Brighton, William Michael Heaviside Whitmarsh, M.D., aged 56.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

Medical Diary for the ensuing Week.

Monday, January 9.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).—5 P.M. Mr Lennox Browne: Diseases of the Nares, Pharynx and Larynx.—Mr. Wyatt Wingrave: Demonstration of the Commoner Micro-organisms occurring in the Nose, Throat and Ear, with their accompanying Tissue Changes (Lantern and Micro Slides). (Post-Graduate Course.)

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Annual General Meeting. Casual Communications:—Mr. Ackery: A peculiar case of Bone in Dentine.—Mr. D. Hepburn: Osseous Union of Molar Teeth. Paper:—Dr. E. W. Roughton: Micro-organisms of the Mouth (with lantern demonstration). The President will deliver his Valedictory Address.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. S. Bristowe: Syphilitic Affections of the Nervous System. (First Lettsomian Lecture.)

Tuesday, January 10.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 1.45; Saturday, 9.15.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. A Haig: The effects of the Iodides on Arterial Tension and the Excretion of Urates.—Mr. D'Arcy Power: Cases to illustrate the Relationship which exists between Wryneck and Congenital Hæmatoma of the Sterno-mastoid Muscle.

Wednesday, January 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HUNTERIAN SOCIETY (London Institution).—8.30 P.M. Mr. H. W. Denton-Cardew: Electricity in Every-day Practice (with demonstration).

Thursday, January 12.

ST GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.—Dr. E. Clifford Beale: Two cases of Myxœdema treated by Thyroid Extract.—Dr. G. J. O'Reilly: (1) Case of Lumbar Abscess opened when 70 oz. of pus were evacuated, cure; (2) Case of Perityphlitis with peritonitis, absorption, cure.

CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).—5 P.M. Dr. Dundas Grant: Diseases of the External Meatus (concluded).

Friday, January 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

CLINICAL SOCIETY OF LONDON.—Dr. de Havilland Hall: A case of Rhinolith.—Sir Dyce Duckworth: A case of Inherited Gout with production of Tophi at an early age.—Mr. Davies Pryce (introduced by the president): On Uratic Deposits in the Conjunctival Membrane.—Dr. Penrose and Dr. Lee Dickinson: Cases of Abscess beneath the Diaphragm in connection with Perforating Gastric Ulcer.

Saturday, January 14.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Jan. 5th, 1893.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Dec. 30	29·86	S.E.	28	..	..	37	27	..	Foggy
,, 31	29·84	N.E.	34	33	..	37	27	..	Cloudy
Jan. 1	29·91	N.E.	29	..	36	31	28	..	Snowing
,, 2	30·07	N.E.	27	..	45	30	23	..	Cloudy
,, 3	30·15	W.	25	..	33	34	22	..	Cloudy
,, 4	30·37	S.W.	23	..	..	35	21	..	Foggy
,, 5	30·42	S.W.	20	..	..	25	19	..	Foggy

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged in the future to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together.

We have had a large number of duplicate copies of the Index to the last half-yearly volume printed, and those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

"THE LANCET" DURING 1892.

THE following particulars of the work of THE LANCET during the past year have been forwarded to us by a correspondent, and as they are likely to prove of interest to our readers we, after categorically verifying the accuracy of the figures, publish them. From the figures submitted it appears that in the year 1887 THE LANCET contained 11,744 columns, in 1888 it contained 12,376, in 1889 13,728 columns, in 1890 it rose to 14,032, and in 1891 the figure reached was 14,304 columns. The year 1892 shows a still higher figure—a total of 14,784 columns, 5992—within eight of 6000—of which were devoted to purely literary matters, 8692 columns contained advertisements, and space amounting to over 100 columns was required for the purpose of an index. From these figures a simple calculation will show that the average size of each weekly impression has amounted to 142 pages. Looking at the impressions individually, it will be found that one of the numbers contains 216 pages—namely, that of Sept. 3rd. No single number of THE LANCET of corresponding size has ever before been offered to the subscribers. Of the other numbers, one consisted of 200 pages, one of 168 pages, there were two of 152 pages, nine of 144 pages, twenty-five of 136 pages, twelve of 128 pages and one of 120 pages. The columns of literary matter include reports of clinical lectures extending over 634 columns, 851 columns have been devoted to Clinical Notes and Original Articles, and the cases recorded in the "Mirror of Hospital Practice" required 198 columns. The columns devoted to Analytical Records this year amount to 29, and 49 columns have been used for notifying New Inventions. Annotations have taken up 761 columns and leading articles have reached over 431 columns, while special articles have extended to 951 columns. About 130 columns have been devoted to the interests of public health, and reviews and notices of books occupy 209 columns. Correspondence has received space to the amount of 269 columns and the answers to correspondents required 265 columns; miscellaneous medical news covers some 317 columns of THE LANCET. Further, the Students' Number contained 156 columns devoted to information concerning the regulations and arrangements of the various medical schools and examining bodies. Notices and reports of the British Medical Association have occupied 70 columns, the reports of the General Medical Council amount to 23 columns, 81 columns have been devoted to Obituary notices, and 46 columns to Foreign and University Intelligence; special lectures have occupied 5 columns. Thus 5475 columns of matter have been accounted for, and the remaining 517 have been taken up with Special Supplements, reports of medical societies, law cases and Parliamentary news of interest to the members of the profession, the Services, THE LANCET Sanitary Commissions, pharmacology &c. &c.

ANASTASIO CHINCHILLA.

To the Editors of THE LANCET.

SIRS,—I am anxious to know if there is an English edition of the works of Anastasio Chinchilla, especially of his "Anales Historicos de la Medicina en General y Biográfico—Bibliográficos de la Española en particular," which was originally published in Valencia by Lopez and Co. in 1841-8. *El Siglo Medico* of the 25th inst. contains a short biographical notice of the author, which, however, deals only in generalities. Can any of your readers oblige by supplementing the information? I am, Sirs, yours truly,

Cavendish-row, Dublin, Dec. 30th, 1892. GEORGE FOY, F.R.C.S.I.

THE LATE DR. WALSHE.

OUR attention has been called to what appears to have been an omission in our obituary notice last week of the death of Dr. Walshe. During the later years of his life Mr. Buckston Browne was a frequent professional attendant on the late esteemed physician, and it is the belief of his friends that to Mr. Browne's assiduous care in the surgical management of the case is due the prolongation for some years of the life of Dr. Walshe. We may also note that in our leading article on "Richard Owen and Walter Hayle Walshe" (THE LANCET, Dec. 24th, 1892) it was stated that he studied physical diagnosis under Laennec. This is an error. He was too late in Paris for this advantage, but through Louis and his other great teachers he came very near it.

THE ROYAL COMMISSION ON VACCINATION.

To the Editors of THE LANCET.

SIRS,—Can you kindly give us any information with regard to the expense the country will incur with respect to the Royal Commission, including the costs of the increase of small-pox? Are the Commissioners paid per diem or is it contract work—in other words, paid according to the amount of the harm done? It does seem strange after all the profession has done to mitigate disease and suffering that a Commission, some of whose members belong to the profession, should be instrumental in rendering those efforts abortive.

I am, Sirs, your obedient servant,

St. John's, Worcester, Dec. 26th, 1892. WM. WOODWARD, M.D.

*** The members of the Royal Commission on Vaccination are not paid. They give their services gratuitously. Whilst we regret that the lengthened period during which they have been sitting should have been utilised by many as a reason for disobeying the law, it must be remembered that since so much time has been allotted to the anti-vaccinationists to state their case it is most important that nothing should now be done to prevent an adequate reply being made to their contentions. This reply is now in progress, and it is hence undesirable just at this moment to urge the Commission to act without fully hearing the answer of the advocates for vaccination.—ED. L.

THE VITALITÉ BATH MAT.

WE have had brought under our notice a novelty in the shape of a mat for use in the bath-room and the nursery. The device has been introduced by the Vitalité Sock Company and consists of a mat of absorbent material—the well-known loofah, in fact—which forms a good substitute for the cork ordinarily in use for that purpose. Its fibrous nature will recommend it from a sanitary point of view. It will undoubtedly be found an agreeable auxiliary to the comfort of the morning bath.

A GAS-FORMING BACILLUS IN THE URINE IN CYSTITIS.

SCHOW (*Centralblatt für Bakteriologie*, Dec. 3rd, 1892) reports the result of a bacteriological examination of the urine of a patient suffering from compression myelitis with incontinence of urine and cystitis. The urine had a sulphur-like odour. It contained an organism which Schow classes as a cocco bacillus, from the fact that some specimens had the form of cocci whilst others were short rods. The organism stained with the ordinary aniline dyes, including Gram's stain, and grew upon the usual media, in some with production of gas. It also grew rapidly upon sterilised urine, producing cloudiness, slight alkalinity, gas bubbles, and a somewhat aromatic odour, differing, however, from that noticed in the patient's urine. As modifications of this odour had been noticed in the other culture media, Schow concludes that it was produced by the microbe in question and that the modifications mentioned were dependent on the different constitution of the media employed. The gas proved to be carbonic acid. A broth culture of the organism was injected into the bladder of a dog and the urethra subsequently ligatured; the period of retention was six hours. The urine examined next day was found to be cloudy and alkaline, and to contain besides triple phosphates and oxalate of lime the microbes above described, in small quantity. Schow proposes for this organism the name of "cocco bacillus aerogenes vesicæ."

Investigator.—The full title of the work is "Susrutas. Ayurvédas. I.I est Medicinae Systema a Venerabili D'Hanvantare demonstratum a Susruta Discipulo Compositum. Nunc primum ex Sanskrita in Latinum sermonem vertit, introductionem, annotationes et rerum indicem adjecit Dr. Franciscus Hessler. Erlangae apud Ferdinandum Enke. 1844." (Susrutas. Ayurvédas. That is, a System of Medicine demonstrated by the Venerable D'Hanvantare, compiled by Susrata, his disciple. Now for the first time translated from the Sanscrit into Latin, with an introduction, annotations and index of contents, by Dr. Francis Hessler. Erlangen, Ferdinand Enke, 1844.) Our correspondent, however, had better use this version with caution. Häser, in his "History of Medicine," calls it "sehr mangelhaft" (very defective).

THE LATE MR. SUMMERS, M.P.

To the Editors of THE LANCET.

SIRS,—The late Professor Freeman and Mr. Summers, M.P., have recently died of small-pox abroad. I have an idea that these gentlemen have at some time shown some friendliness to the anti-vaccinationists, and it would be interesting to learn whether they had ever been vaccinated and revaccinated. Perhaps some of your readers may be able to throw a light on the subject, but it seems curious that the papers in sympathy with the anti-vaccination movement have in neither case called the attention of the profession to the uselessness of vaccination.

I am, Sirs, yours obediently,
Jan. 3rd, 1893. D. P. H.

A CHILDREN'S HOSPITAL FOR RIGA.

RIGA is about to have a children's hospital, as the town council has decided to erect one with part of the fund which was left to it for charitable purposes by the late Mr. James Armistead. This fund now amounts to more than £4000. It is proposed to provide accommodation at once for ninety-eight patients, and to add to the building as circumstances may require.

Dr. Henry S. Lunn, London.—Our correspondent will find ample information on the subject in our present issue. He is also referred to THE LANCET of Nov. 26th and Dec. 17th, 1892.

"AN UNUSUAL CASE."

To the Editors of THE LANCET.

SIRS,—I observe in your issue of Nov. 19th (page 1205) one of your correspondents describes under the above heading a rather peculiar case of albuminuria, regarding which he would like some further information. I have carefully considered his statements of the case and I am of the opinion that the case is one of simple physiological albuminuria and that the patient is most likely to still further improve and may live to a comparatively old age.

I am, Sirs, yours faithfully,
Mansfield, Kilmaurs. ROBERT STEEL, L.R.C.P. & S. Edin. &c.

*** It is difficult to concur in this view, seeing that not only was the albumen of large and increasing amount, but renal tube casts were also found.—ED. L.

"VARICOSE VEINS AT THE ROOT OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—I find that some persons at the present day are constantly talking about varicose veins at the root of the tongue. Will any of your readers kindly let me know whether this is really a common complaint and how it should be dealt with?

I am, Sirs, your obedient servant,
December, 1892. IGNORAMUS.

MEDICAL EPIGRAPHY.

THE writing of inscriptions belongs to the fine arts—as much so as the sculptured monument or memorial tablet on which they are engraved. We have from time to time transferred to the columns of THE LANCET some of the more perfect of these, particularly when they related to professional worthies of the past. Italy, in her great medical schools, shines especially in the art, showing that modern Italian lends itself with hardly less succinctness and felicity of phrase than ancient Latin to this form of literature. Her latest specimen is also one of her happiest—that inscribed on the tablet inserted in the façade of the Florentine residence of Giovacchino Taddei, the great Tuscan pharmacologist, on whose life and work we lately commented:—"GIOVACCHINO TADDEI—Samminiatese—chimico di fama universale—professore in Santa Maria Nuova—Senatore del Regno—abitò per lunghi anni questa casa—sulla quale nel 1892 centenario della sua nascita—il Comune di Firenze—e l'Associazione Chimico-Farmaceutica fiorentina—scrivono il nome di lui—che dalla cattedra nei libri con Pesercizio della professione—servì la scienza e l'umanità—e cittadino animoso e integerrimo—meritò gli onori della Patria italiana—con l'aver partecipati i travagli e i pericoli—del suo rivendicarsi a libertà di Nazione.' (Joachim Taddei of San Miniato, a chemist of universal fame, professor in Santa Maria Nuova, senator of the kingdom, for many years occupied this house, on which, in 1892, the centenary of his birth, the Commune of Florence and the Florentine Chemico-Pharmaceutical Association inscribe his name as that of one who from the chair, in books, in the practice of his profession, served science and humanity, and who, as a nobly inspired and most upright citizen, earned honour from the Italian fatherland by having shared the endeavours and the dangers whereby it reasserted for itself the freedom of a nation.) The inscription, we have learned, is from the pen of one of the late Dr. Giovacchino Taddei's colleagues, Professor Isidoro Del Lungo.

THE NURSING OF PARALYSED PATIENTS.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if any of your correspondents would kindly give or direct me to any practical hints for the nursing of a patient in reduced circumstances suffering from paraplegia with incontinence of urine. He cannot wear an indiarubber urinal. Is there any cheap aseptic absorbent (? tow) that could be used? Any hints will be thankfully received, but they must not involve more than a minimum of expense.

I am, Sirs, yours faithfully,
Brighton, Jan. 1st, 1893. M.B.

THE INTERNATIONAL MEDICAL CONGRESS.

Curiosus (Dublin).—To the European States which have promised special travelling facilities by land or water for intending participants in the above Congress must now be added Switzerland and Turkey. There are already constituted in Italy for the purposes of this great gathering ninety local committees, while the foreign ones now amount to twenty. In the eight months that have still to elapse before the opening of the Congress the Italian committees will number seventy-three more, and the foreign twenty-five more. The efforts of the organising committee are now being concentrated on the programme so as to meet the objects of the meeting with the least possible friction to the participants and the greatest economy of time and attention.

The Management of the "Florence Gazette."—In England it is contrary to professional usage to insert such particulars in periodicals.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*The Nursing Record, North Star, Figaro, Manchester Courier, The Pelican, Bristol Times and Mirror, Morning, Cambridge Chronicle, South-Eastern Gazette, Liverpool Mercury, Southampton Observer, Surrey Times, Liverpool Courier, Public Opinion, Irish News, English Mechanic, Ulverston Advertiser, Essex County Chronicle, Kent Coast Times, Deal Telegram, Shrewsbury Chronicle, Le Courrier de la Presse (Paris), Galignani's Messenger, Madras Mail, Wilkes-Barre Record, Liverpool Journal of Commerce, Leith Burghs Pilot, Wolverhampton Chronicle, Bradford Observer, North British Daily Mail, Dundee Advertiser, Times of India, Pioneer Mail, Liverpool Daily Post, Yorkshire Post, Reading Mercury, Mining Journal, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, City Press, Leeds Mercury, Bristol Mercury, The West Australian, Guy's Hospital Gazette, Surrey Advertiser, Food, Drugs, and Drink Journal, Local Government Journal, Bridgwater Mercury, Chester Courant, Falkirk Herald, Derby Mercury, Wiltshire County Mirror, Le Temps (Paris), Huddersfield Chronicle, West Middlesex Advertiser, Glasgow Herald.*

Communications, Letters &c. have been received from—

A.—Mr E. H. Anderson, Braddock, Pa., U.S.A.; Arts, Society of; A. M. B., London; Associated Press; Anglo-Swiss Condensed Milk Co., London; St. Andrew's Hospital, Northampton; A. Z., London.

B.—Dr. C. F. Beadles, Colney Hatch; Mr. W. Braine, London; Dr. J. W. Bond, London; Mr. H. Bradburn, Leamington Spa; Mr. A. C. Butler-Smythe, London; Mr. B. E. Brodhurst, London; Mr. C. H. Barstow, Harrogate; Mr. T. B. Browne, London; Mr. S. A. Blackwood, London; Mons. Berthier, Paris; Mr. Birchall, Liverpool; Mr. Allan Broman, London; Mr. J. G. Burgess, London; Messrs. Baelz and Co., London; Messrs. Burgoyne and Co., London; Messrs. Bush and Co., London; Messrs. Bradley, Barker and Co., Alleghany, Pa.; Messrs. C. Barker and Sons, London; Messrs. Blackwood, London; P. Blakiston, Son and Co., U.S.A.

C.—Dr. J. Crerar, Maryport; Dr. E. Carver, Cambridge; Dr. Cranny, Dublin; Mr. A. Cameron, North Kensington; Mr H. Connop, Elstree; Mr. W. L. Crowther, Wellington, N.L.: Messrs. Chas. Griffin and Co., London; Messrs. Condy and Mitchell, London; Messrs. G. and T. Carlyle, Liverpool; Messrs. Clarke, Son and Platt, London; Messrs. Crossley, Moir and Co, London; Messrs. Cassell and Co., London; Cortland Wagon Co., London; *Chester Courant.*

D.—Dr. Wm. H. Day, London; Miss Davidson, Bournemouth; Messrs. Duncan, Flockhart and Co., Edinburgh; Messrs. Dale, Reynolds and Co., London; Devon, London; D. P. H.

E.—Mr. B. Edwards, Birmingham.

F.—Sir Joseph Fayrer, London; Mr. George Foy, Dublin; Mr. R. Austin Freeman, Wimbledon; Mr. W. Feeny, Haverthwaite; Messrs. Fletcher, Russell and Co., Warrington.

G.—Dr. Chas. Gross, London; Mr. D. M. Gray, Dundee; Gladiolus, London; Guest Hospital, Dudley.

H.—Mr. Heaton, Birmingham; Mr. Walter W. Heelas, London; Mr. Heywood, Manchester; Mr. W. Hornibrook, London; Messrs. Hertz and Collingwood, London; Messrs. Huggins and Co., London; Messrs. Humphreys, London.

J.—Dr. Robt. Jones, Liverpool; Grand Priory of the Hospital of the Order of St. John of Jerusalem in England; Justus, London.

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